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THE INTERRELATIONS OF DELINQUENCY AND NEUROSIS: THE ANALYSIS OF TWO CASES*

By ANDREW PETO†

Psychoanalytical research into delinquency has been hampered in that it has always been carried out under some kind of social pressure. Both the juvenile and the adult patient are always in a socially dangerous situation. During the treatment their asocial activities continue, so that the therapist is forced into a kind of race in an attempt to avert dangerous consequences. He must try to save the patient from his 'disease' as soon as possible to avoid the patient's imprisonment or any other kind of social retaliation. 'Acting out' in the analysis of delinquents ceases to be a transference problem only—a private affair—since it provokes the immediate retaliation of the law (Balint, 1951).

The opportunity of analysing delinquents in a penal institution likewise involves many difficulties. The status of the therapist, the antagonism of the prison officials and the animosity of the other prisoners are complicating factors in this approach. All these circumstances have been amply discussed in the relevant publications (Eissler, 1949).

Whether the counter-transference difficulties were stressed or not in these publications, it was clear that they interfered in many ways with a calm analytical atmosphere and gave opportunity to build up many a rationalization on the analyst's part. At any rate, the basic analytical rule of abstinence is more or less deliberately abandoned. On the one hand, the delinquent cannot bear this abstinence; on the other hand, a therapeutic result, the earlier the better, is in the focus of attention. The problem of speedy results cannot but blur the calmness of research and puts an extra strain on the whole analytical situation. Moreover, the 'patient' never comes into treatment voluntarily, even if he consciously suffers under the pressure of his activities. He is always pushed or pulled towards the therapist by external factors (Abraham, 1923). The syndrome of 'delinquency' implies that the 'patient' succeeded by his delinquency in avoiding accumulation of inner tension which but for this defence would have risen to the level of manifest anxiety.

In the last two years I have had the opportunity of treating two patients, each of whom had had a criminal period in his life. They sought medical help after they had given up their delinquent activities for several years and had settled down as law-abiding citizens with a respectable family life and an honest occupation. Thus their analysis gave an opportunity to investigate their psychodynamics before, during and after their criminal activities, and to study the interchanging of 'neurotic' and 'delinquent' symptoms. The analysis was carried out without social pressure and it did not differ in any way from the classical procedure of psychoanalysis.

In the survey of both cases I shall first discuss their manifest case history, then the relevant points of their transference neurosis so as to illuminate the dynamics of their way to and from delinquency, and finally I shall make an attempt to evaluate my findings in them and point to their validity in the dynamics and aetiology of delinquency in general.

Case 1

S., at age 42, began to suffer from anxiety states, occasionally accompanied by depression and subsequent suicidal tendencies. He

* This paper was read as the Bachelard Lecture of the Australian Rorschach Society on 5 December 1952.

† Training Analyst, Sydney Institute of Psychoanalysis; Member of British Psychoanalytical Society.

remembered having had similar, though much slighter, complaints in his early twenties. For a year he was treated with drugs and superficial psychotherapy by several psychiatrists without relief and he then began analysis. His analyst referred him to me after two years' treatment, by which time he had improved. He spent a further two years with me and then interrupted his treatment while fairly free from symptoms.

He was the youngest son of a large lower middle-class family of strict moral standards. His one brother and five sisters were much older than he. He was the favourite child of his mother who breast-fed him until his fifth year. Up to adolescence he had slept in her bed with his head leaning on her breast. He continued until his mother's death, when he was 22, to sleep with her, his father having moved to a sofa in the bedroom during these years.

His mother insisted on breast-feeding him, though everybody mocked and condemned it, and he was ashamed of it. At an early age he resented his over-attachment to his mother, but he could not resist the temptation of her breasts. He remembered that while he had played with the other boys in the street he had felt impelled to run now and then into the house and take a few gulps from her ever-ready breasts.

Once while he was squatting on a corner of the street when about three years old, a dog came along and licked his anus. Afterwards he enticed it to repeat the same practice several times, since he enjoyed it. When he was about four years of age a youth repeatedly pushed his erect penis against the patient's anus. The child never complained about this at home and he was pretty sure that his share in creating this situation equalled that of the young man. He definitely was not a helpless little victim.

His latency period was characterized by anti-social activities which show, even at a superficial glance, a reversal of the traumatic situations of his early childhood. He systematically bullied girls of his age, mainly by smearing manure on their hair. He was extremely aggressive at school, e.g. he punched a teacher and he attacked adults in the street. He played truant regularly, one of his main reasons being his longing for his mother about whom he day-dreamed a great deal in school.

He became a hairdresser's apprentice and was skilful in his trade. Although extremely shy with women in general, he got involved in sexual affairs with young girls. Sometimes he had homosexual experiences (mostly as the passive partner in fellatio), and occasionally he himself acted as a male prostitute. After opening a hairdressing saloon of his own, he gradually contacted the underworld of the city, especially bookmakers and prostitutes. He fell in love with a divorced prostitute, who was unfaithful to him from the beginning of their acquaintance; but his infatuation with her, despite warnings by many friends, persisted and he married her immediately after his mother's death. (His father died a few years earlier.)

He soon discovered that he could not earn enough through hairdressing to cover his and her expenses so he started bookmaking. He proved to be 'very clever at sums' and became popular within his circles. A card-sharper, who discovered that he had the proper talents of skill, cool weighing-up and a challenging spirit, taught him his art. He was an excellent pupil who soon excelled his master to become one of the top-men in this activity, and he remained a card-sharper for 15 years without being caught either by the police or by his victims.

In his life in the underworld, gun-men were his close friends and he talked about some of them in warm and appreciative words during his analysis after he had severed all relations with them. He took great risks in his gambling, since the danger meant extra 'fun' to him. Thus he would visit far-away mining towns where he gambled and cheated when playing with thirty to forty men of the roughest type and where he was sure he would have been killed immediately if he had been caught. After getting home between three and four o'clock in the morning, he would go to bed and repeat all the card games of the previous evening. This repetition induced great excite-

ment and was accompanied by greedy eating. As a sideline he was a partner in 'two-up schools', baccarat clubs, and occasional insurance frauds.

His married life was unhappy. His promiscuous wife exploited him, and he gradually got tired of her. One of his nephews offered him his young girl friend who had just started her career in the underworld. He fell in love with her and she proved to be a faithful companion and a decent woman. When he tried to get a divorce from his wife, she stubbornly refused; but, although this worried him, it did not prevent his being happy with his girl friend.

He now began to realize gradually that cheating and gambling meant an ever increasing tension for him. Increasing fear of being caught and depressive thoughts about his future started to occupy his mind. He was afraid of losing his skill and he ceased to enjoy cheating. Offers of gambling opportunities which practically guaranteed thousands of pounds were refused by him.

A short period of happiness arrived when his first wife died unexpectedly and he was able to marry again two days later. Nevertheless, because of increasing anxiety states he had to give up card-sharping and became a dog bookmaker in partnership with friends.

Parallel with these changes his potency decreased. His erection became rather unsatisfactory and his desire for his wife gradually diminished until it completely disappeared. Sexual intercourse meant to him a loathsome duty; he felt pain in his penis and was sorry for himself. He was afraid of losing his wife and suffered from remorse for having neglected her. At the same time he looked forward to being rid of her and this conflict intensified his sufferings.

Though he had been prone to day-dreaming about other women, apart from a single occasion in another city, he never deceived his wife.

Another problem of his was that of partnerships. Both as a card-sharper and as an honest businessman, he could not do without partners; yet he resented them since, in his opinion, he did not need them.

I shall now attempt to reconstruct S.'s development as it was revived and presented in his transference neurosis. Special reference will be made to the processes that led to his delinquency and to those that forced him to give up this set of defences.

The first long phase of his transference neurosis consisted mainly of homosexual conflicts at different developmental stages. The first signs of transference that could be interpreted manifested themselves as giddiness and vague fear during the sessions. He became depressed at this stage but rationalized these feelings with the gloomy financial outlook in his business. He thought that he would soon be forced to give up analysis as he could not afford it. Interpretations of the negative part of his transference brought about, apart from his denial, lengthy discussion of his 'professional' skill; he assured me that in his heyday he was the recognized top-man in the whole continent. Now and then he got extremely excited with palpitation, nausea, trembling and stiffness of his limbs during the session. He felt a strong desire to show me his basic card trick in which he excelled everybody. He practised it at home at that time, but he never dared to show it in the session.

The analyst became the feared and hated 'big man', a concept which had several layers. First it meant all the men whom he defied in his career, the leading gun-man of the big city as well as his victims at gambling.

While discussing over a period of weeks all the implications of this 'big man' problem, he dreamt the following dream. He was in a pit with his previous analyst standing in front of him. The analyst was about to attack him homosexually and S. was overcome by despair and helplessness.

This dream was a condensation of all his homosexual and also—as the second period of his transference neurosis proved—of his heterosexual conflicts.

His desire to show me the trick meant to

challenge me, to prove to me that his penis was bigger than that of the 'big man'. At the same time it indicated homosexual seducing. He was also afraid of the analyst's penis that could penetrate into his anus while simultaneously wishing this to happen. Thus he revived the double attitude of his childhood when he was misused by a man whom he in a way seduced.

This anal material brought about oral conflicts too, also of a homosexual kind at this time, in the form of a fear of, and wish for, oral intrusion of the analyst's penis. The phantasies consisted in sucking the penis to get the father's power out of it, or to bite it off as a defence against the intruding father (represented by the analyst in the transference) and to acquire his big penis in this way.

These phantasies were rooted in his early fears and aggression towards his father, his rival, whom he managed to drive away from his mother's bed, but whom he was afraid of because of his success. The interpretation of these phantasies and their reflexion in the transference phenomena provoked 'head noises' in the session. The latter were an old complaint and could be interpreted within the transference as caused by the intruded or swallowed paternal penis that tortured him within his skull. It was the physical presentation of the introjected aggressive father imago that punished the son for his oral crimes and drove him, in his transference phantasies, to feel impelled to jump out of the window.

After an adequate working through of some of the causes of his neurotic and transference anxieties, the meaning of his cheating could be shown to be a defence against the castrator-lover father-rival on oral and anal levels. The hysterical transference symptoms shifted his defences in the transference neurosis to the phallic level and they gave a more rounded picture of his delinquent activity in terms of its defensive functions.

Phallic phantasies came to the fore with a wish to introduce his wife to the analyst under the pretext of seeking his advice about her nervousness. This wish meant in part the boastful display of his wife's beauty, and in part proving his oedipal victory by offering her to the analyst-father. It was a reconciliation and an appeasement of the analyst as an angry castrator. The relevant interpretations revived the whole situation at home when he had apparently chased away his father from his mother's bed and they provoked stiffness of the right arm and leg with accompanying paraesthesiae during the session. These phantasies alternated with fears of the analyst's thrusting his penis into the patient's head as a revenge for the patient's oedipal boasting. His stiffness meant the castration of the displaced penis as a punishment for boasting to the analyst about his wife and it also indicated his helplessness against the analyst.

The card trick consisted of pushing, while dealing, the upper card to the bottom and dealing the next but one to the partner. Dealing meant for him showing off his power, homosexual activity with the opponent (the father imago), and taking the father imago's money, i.e. his power. The card, the penis, that should have been given, was turned down to the anal level and so a homosexual way out from the bi-sexual-oral-intruding castration situation was allowed. The second card that was dealt was valueless, faeces instead of penis, and so it could be given to the opponent. Naturally every application of this defensive shifting from the oral castration situation to the anal castration, i.e. giving faeces instead of the penis, linked this defence with homosexual gratifications on the anal level and aroused new anxieties in the form of fear of the externalized father imago, the opponents. It made compulsory a repetition of the dangerous situation. By repeating the game in bed at home he tried to rid himself of his fear of annihilation. Here the oral conflict that was warded off during cheating broke through in the form of paroxysmal eating. It was not he who was devoured, but he devoured the nipple-penis.

At the height of his delinquent success the superego's punishment forced its way to expression by his having to share, (*a*) the anal gain with accomplices, (*b*) his honest business

with partners; and (*c*) his first wife, the phallic gain, with other men through her prostitution. Thus his delinquency established for the ego a precariously maintained balance between id impulses and superego pressure. It satisfied both these needs and dealt with three types of anxiety: (*a*) fear of the strength of the homosexual and aggressive impulses; (*b*) castration anxiety from the projected father imago (the victims at play); and (*c*) the pressure of the sense of guilt. Eventually the latter became too strong and he developed an anxiety neurosis with depression and impotence. The phenomena of the transference reflect the causes of that breakdown. The superego was too strong and the patient's ego could not bear any longer his challenge of the father imago. The fear of his victims overwhelmed him so that he had to give up cheating. The revenge of the superego went further, for the internalized father imago (as seen in the 'head noises' in the transference) pushed the ego into depression, threatened him with suicide and forbade him his decent wife.

The incestuous mother relation started to enter into the transference at the stage when he understood what his delinquent activities signified and how his subsequent breakdown happened. At this stage, although he was under great strain from the transference anxieties, his relations with his wife improved. His sexual desires reappeared and intercourse became more frequent and even enjoyable. These events were in turn related to a new wave of transference anxieties. The analyst started to play the role of the powerful and seducing mother and was identified with the wife. The patient felt guilty because he left the father, because he felt heterosexual desires and enjoyed intercourse. The analyst-mother threatened his penis; he might have cut it off while lost in sexual pleasure. Thus he had to escape the castrator-mother-analyst.

The homosexual transference relations already described ran parallel with these mother conflicts, with the result that analysis symbolized a twofold danger at this stage, viz., castration from both the mother and the father. This threat within the transference neurosis provoked an 'acting out' which proved that my interpretation of his delinquency was a correct one. The 'acting out', at the same time, paved the way for further understanding of the underlying factors that drove him into delinquency. Since giving up his gambling, he had been approached many times by old accomplices with proposals for a selected occasion or for a regular team job. He had refused all of these in the past without the slightest hesitation because of his anxieties. At this point in his analysis he was again approached with a sound and well worked-out scheme. The only card-sharper whom he rated better than himself and another man, an international smuggler, suggested to him a trip to a place where, according to information, wealthy merchants would gather for a few days' gambling. It was estimated that about A.£30,000 could be won. His first reaction was panic and the usual refusal, but on second thoughts he accepted.

It emerged clearly in his analysis that this intended gambling represented an 'acting out', a double-barrelled defence against the threatening mother and father imagos. The immediate meaning was that of escaping the dangerous father imago (the analyst) by joining his old mates with whom the homosexual strain and castration fears were more distributed and more sublimated according to the old patterns of his past life. The other more important meaning was that anxiety was provoked by his increased heterosexual libido with its consequences of phallic castration anxiety and an increased sense of guilt. His latent homosexual defences protected the patient from the love and threat of the mother imago that came forward in the transference situation at this stage. This had to be defied as it was defied in his youth when he turned to delinquency to rid himself of the mother imago. The criminal excursion, though it meant about six weeks' interruption of the analysis, precipitated into the transference his fight with the mother imago and helped to reconstruct the defence mechanisms that led to delinquency.

As he was out of practice, he took the role of an accomplice only. The first part of the trip was by sea and he suffered from panicky fear, depression, and thoughts of throwing himself overboard. Everything went according to schedule. They made friends with the victims by 'mere chance', lost big sums willingly the first day, and then played carefully but honestly the second day so as to win back the greater part of their losses. On the third day, after having won the absolute confidence of the victims, they started to play with the marked cards. The latter were bought by the victims in the hotel as new ones after the patient and his friends had bribed the appropriate man on the hotel staff. They won cautiously, but old rivals of the smuggler then interfered and they had to leave the country post-haste.

He immediately came back into analysis, and from then on we were able to go ahead with the mother transference which provided the material for explaining his route to delinquency. The anxieties of the voyage were found to be due to fear of the revengeful mother-analyst imago who would punish him for his transgressions. He hated the analyst for this attachment and for having forced him into the heterosexual position as a revival of his infantile incestuous desires. Thus, the regression to crime was an attempt to rid himself of the incestuous threatening mother imago. A dream wherein he was about to be attacked by an analyst had a deeper meaning, viz., to be attacked by the extremely loving mother. She wanted to take complete possession of him. The penis of the father imago proved to be only a later representative of the nipple of the intruding mother breast (an intrusion into his mouth up to the age of 5). This breast was deeply longed for and vehemently hated and refused. He unconsciously hated the mother because of his own incestuous attachment and her absolute power over him. In the transference at this stage the analyst became the persecuting mother imago, powerful because of his knowledge and helpful art. Analysis meant being fed on the breast but dependent for ever. Depressive phases and suicidal thoughts proved to be symptomatic expression of the internal fight against the incorporated, devoured, mother imago. Interpretations provoked 'head noises' created by phantasies of being attacked by the breasts of the analyst that smothered him, intruded into him, took possession of him, and ground down his head and body. Suicide at this time meant partly the destruction emanating from the devoured, incorporated mother, partly a desperate effort of the ego to kill the mother imago within himself. This nagging mother, devoured by him and so tearing his inside to pieces, grew as a tumour in him, and he became afraid of carcinoma of his chest or abdomen. He now became completely impotent with his wife, but showed normal potency with prostitutes. He loved his wife and panicked at the thought that she might leave him, but felt no sexual desire towards her. There was an alloplastic separation of the 'good' untouchable mother from the 'bad' incestuous mother.

Gambling meant in these layers taking refuge in latent homosexual activities so as to escape the heterosexual incest on oral and phallic levels. He had become a delinquent primarily to escape from the mother, the attachment to whom was the main cause of his infantile neurosis. The escape from this unconscious heterosexual incest on oral and phallic levels led him into the unconscious homosexual incest on the oral, anal and phallic levels, i.e. delinquency. After many years these defence measures broke down, the anxiety from the threatening imagos (sense of guilt) having become too great to be coped with through the projective mechanisms of his delinquency. Thus he re-escaped into the unconscious heterosexual incest, to the neurotic conflicts of his childhood and adolescence, to phobic and depressive mechanisms. Honest life and decent wife were the manifest signs of these dynamics, impotence and manifest anxiety the symptomatic results. Both delinquency as well as neurosis were caused by the unsatisfactory solution of his Oedipus conflict on several levels of his instinctual and ego development.

Case 2

After having been treated with ECT without success, H. began analysis at the age of 40 because of permanent inner tension, fierce outbursts of rage interchanged with depression, fear of everything and everybody, mental exhaustion and lack of ability to make relations with people. He was embittered and considered himself a good-for-nothing who was hated even by his wife and his children. He had suffered for the last ten years from frightful hallucinations which also appeared in every analytical session. After four years' treatment, he discontinued his analysis by agreement with the analyst and a year later he re-started treatment with me. Before the beginning of this second analysis, his relations with his children had improved, he had become less harsh and had shown more interest in their education. Parallel with these changes he had succeeded in his business as a pastry-cook and had bought a second shop. These improvements progressed further during his second analysis. He realized that his wife was a 'nervous wreck' who needed sympathy and was incompetent to bring up her children. He joined a bowling club where he felt happy from time to time. His children became definitely attached to him and that gave him great satisfaction.

In the family anamnesis a maternal uncle had killed his wife in an epileptic fit, and was in lifelong custody in an asylum for insane criminals. The patient was born between two brothers, and had a sister who was the youngest child.

He spent his childhood in one of the semi-slums of London. His father had had no regular occupation and spent his time in public-houses with women. He had always neglected the patient except for ridiculing him or taking his pocket-money back from him. The mother, 'dull and dopey', had never given a kind word to the patient and very seldom to the other children. She had cared for her husband only, although there were continuous parental quarrels about money she had stolen from the father's pockets and about his unfaithfulness. She had never kissed or cuddled the patient and had looked after him only on the occasion of a childhood pneumonia when she took him into her bed. Food had always been scanty at home, and the children had never got more than the remnants of the parents' meal. The patient's pet-name was 'monkey-face'. He had never been taken to the pictures with the other children. If he earned a few pence on some errand his mother either took the money or forced him to buy fish with it for the household.

Parental intercourse with all its horrors for the little boy was a conscious memory. He was desperately afraid of those nocturnal scenes and he became a depressed, timid boy, who never smiled. When aged four he set fire to the flat while his parents were in the theatre. A chair was charred but the neighbours discovered the smoke and he was subsequently severely beaten. At school he had often played truant, loitering around aimlessly in the streets. He was, in his opinion, dull in his studies and often ridiculed by teachers and pupils. 'He acted the fool.' Everybody looked down on him. Girls mocked him; if they were kind to him, he became clumsy and pretended that he did not understand their advances. For a time he worked as errand-boy in a solicitor's office. He committed petty larcenies and regularly stole from his mother's money, thus taking back the wages that he had to give her for his board. His mother lent him money with which he and a friend opened a butcher's shop without having any previous training. He had to close it within two months after which he went to sea for about five years as a cook on cargo-boats. He was always lonely; the crews hated him or at least ostracized him partly because he never learned to cook properly, partly because he had nothing in common with them. Occasionally he was involved in fierce brawls and was put ashore a few times because the captain or the chief steward hated him. Eventually he was stranded in Australia where he spent several years loafing, sometimes with an odd job, or living in the prostitute underworld of a big city. He experienced a

few homosexual relations and had some intermittent relations with prostitutes. Finally a prostitute chose him as her regular friend and though he despised her, he nevertheless took her money and lived with her. Once he was charged with vagrancy but escaped sentence.

The climax of this period was reached when he attempted to blackmail a casual guest of his girl-friend whom he caught in the act in a prearranged rendezvous. He took all the blame in court and was sentenced to jail for four months. During the trial and in prison he was completely confused, his state at this time suggesting a psychotic episode. Immediately he left prison he married his girl-friend and acquired gonorrhoea from her. She persuaded him that he had contaminated her, though he knew very well that this was not true. He now left for England where he lived with his family.

Incestuous relations with his sister took place, but intercourse proper could not be consummated because of lack of erection.

After a year at home, hating his father and brothers and being despised by them, he again set out for Australia with money borrowed from his mother. He forced his wife to divorce him as he had evidence of her adultery that was given him by rival prostitutes. Then he started to work regularly and he detached himself from his previous surroundings. He paid back his debt to his mother in small but regular instalments. Next he made the acquaintance of a young girl of good middle-class family, and after she had overcome the family's resistance they got married. His father-in-law lent him money to buy a bakery and he has worked hard for the last twelve years. The change to a respectable life was associated with symptoms that had not existed or had not been realized by him previously, namely, continuous hallucinations mainly visual and auditory. They added fuel to his temper-tantrums, intensified his depressions, and increased his fear of everyone.

In this case, as well as in that of the first patient, the analysis gave opportunity to trace the way to and away from delinquency. Moreover, this patient also developed serious symptoms only after the cessation of his antisocial activities and the change in his way of life.

The first phases of his transference neurosis consisted mainly of a negative transference of extreme vehemence. Immediately he had lain down he cursed the analyst, threatened him with his fists, and shouted that he would kill him. His whole body was shaken with tremendous rage while in phantasy he cut through the analyst's throat or strangled him. On other occasions he wanted to kick him to death, or to cut off his penis. These threats were followed by desperate screamings of fear that the analyst would take his revenge. The patient felt himself attacked, smothered, bashed to death, and cried for mercy. Then would come again and again his retort: 'One of us has to die, and that will be you.' It soon became clear that these phantasies were embedded in the hallucinations of the primal scene, and were the repetitions of his actual childhood traumata, the agonies of the nights when he watched his parents' intercourse.

These early phases of the negative transference projected the father imago on to the analyst. He hated the father who took the mother's full attention for himself in daytime and, according to his sadistic concept of the primal scene, killed her by bashing her to death, or by stifling her despite her screaming and moaning. He imagined that the father tore out her eyes, bit off her nose and breasts, cut her to pieces, devoured her. He would have liked to protect his mother from the father's interference, to kill him, and take sole possession of the mother, and the more so as he guessed that these supposedly sadistic activities of his father were enjoyed by her too. With the killing of his father he would have achieved two purposes: to protect the mother from the dangerous father and to take his place by her side in the bed.

The working through of these phantasies and hallucinations in the transference enhanced his castration anxieties and increased the fear of the retaliation by the father imago. In phantasy

he attacked the analyst with his penis, thrust it into his anus or mouth, or tore him to pieces with his dagger-penis. The structure and the boundaries of the body scheme fluctuated: his eyes and his tongue became penises that penetrated, killed and became parts of the analyst's body. They penetrated the eye, mouth or anus of the analyst with brutal pleasure. These phenomena were followed by screams of horror at the father imago's retaliation on the same lines. The father imago penetrated the patient, took his organs, got into the patient's mouth, body, and abdomen. The patient felt his mouth full of blood after having bitten off the analyst's penis in these hallucinations and as the pouring blood of the paternal penis smothered him, he suffered agonies of suffocation. The incorporated paternal penis moved in the patient's head, blasted his body, ravaged his inside. At the same time this devastating penis lent him the father's power, the power necessary for acquiring the mother. This in its turn intensified his sense of guilt. The identification with the father was carried out on the oral, anal, and phallic level, with emphasis on the oral one. The bitten-off penis inside him represented the incorporated father's power; but it represented simultaneously the oppressing, punishing, stifling superego.

When these interpretations were given, he begged with threats and screams that the analyst should stop talking because he had already lost his sight; his eyes had run out from their sockets. He became deaf so as not to hear the interpretations. In phantasy he tore off his own ears and offered them to the analyst. He coughed, belched and retched in the session until, in hallucinations, he got rid of his tongue that lay bleeding on the couch, proving to the analyst that he would not be able to betray the secrets of the imagos.

It soon became evident that the negative transference was due not only to the revived conflict with the father imago, but it also derived from the fact that important parts of the superego had been built up on the basis of mother identifications. The mother represented the blood-thirsty imago who took the penis of the father into her mouth, sucked it and bit it off, so as to gain its power. She not only denied her breasts to the boy, but used them as tools of destruction. These and other phantasies aroused his hate. He threatened to attack the analyst as he would have attacked his mother as a revenge for her cruelty and negligence. He wished to bite off her breasts, to pull out her tongue with which she moaned and groaned while having intercourse. He bit off her head in his hallucinations, but the revenging mother then got inside him to torture him inside his head. She forced him to dullness and prevented him from having friends. This incorporated mother imago, a part of his superego, also deprived him of all the pleasures of life, food, tenderness and sexual gratification. Fear of her interfered with erection, because she would have castrated him had he had an erection—no erection, therefore no castration. But there were also phantasies of her tearing off his penis during his incestuous intercourse with her, and of her stifling him under the pretext of embracing.

At this stage of the transference he tried to hide his head by digging himself into the couch and so fleeing from her menacing breasts. The voice of the analyst meant for him her shrieks and yelling, or her monotonous quarrelling with the patient as a boy.

These negative aspects of the parent imagos were slowly blended with positive, loving, longing impulses of homo- and hetero-sexual character. The wild threats of killing the analyst immediately after lying down on the couch lost sometimes the full impact of their violence. His voice became quivering and uncertain and a touch of insecurity was mixed with it. Moreover, the subsequent fears of retaliation became less violent and took more the character of complaints. It was slowly discovered that the threats were only a cover for his demand for love, tenderness and care. He was ashamed of his hunger for love, just as he was helplessly desperate and ashamed as a little boy who had never got any response from his mother when he longed for motherly

care. This longing referred also to the father who absolutely neglected him.

This positive transference ran on both homo- and heterosexual lines. The phantasies were accompanied by hallucinations that proved to be reminiscences and revivals of childhood phantasies and their elaborations. In many instances they were masochistic phantasies linked with castration fears. He hoped and feared that the analyst would attack him, out of love, anally or by asking him for fellatio. On other occasions he offered himself as a passive object to the analyst's desires, and wished to suck the analyst's penis or to put it into his anus. He imagined that the analyst took him into his lap where he hugged and cuddled him, or that he jumped like a small boy into the analyst's lap to sit there quietly and happily. He went through all the rough and tender longings of the oral, anal and phallic developmental stages.

He cried, in the transference, for food or for milk, and his body was shaken by his sobbing and lamenting when he could not get it. He hallucinated entering into the mother's warm body, or was kissed and caressed by her. He wished to drink her urine or her menstrual blood, only to show afterwards disgust, shame and renewed longing. He had hallucinations about indulging in play with maternal faeces, smelling and tasting it.

His hallucinations about his eyes being penises that were thrust like daggers into the analyst's mouth or anus and killed him have already been mentioned. The same hallucinations, in a positive phase, were expressions of tenderness. His whole body was felt as one big penis, his breathing as ejaculated semen. His eyes or tongue, pushed into the analyst, became part of the analyst's body. At the same time he desired the analyst's similar intrusion into himself as a way of physical union, though he was also afraid of it. He could exchange his eyes, tongue and penis with those of the analyst in the same way as the little boy thought that his parents did when united in love and hate, enrichment and destruction; and he attempted through identifications to ward off his fears and to share in the parents' pleasures.

Often the first onset of the phantasy or hallucination marked some kind of archaic love where the inherent ambivalence made the discrimination between love and hate difficult. For example, during a short period of positive transference he started the sessions with the wild exclamation, 'I will push my fist into your mouth'. Then, after a sudden shudder, he would add 'Oh, I don't think that it meant hurting you; I feel somehow that it was an expression of love. I am so frightened that it turned out to be brutality; I really love you.'

The development of this man was mainly characterized by a series of frustrations with their subsequent hate. The ensuing anxieties were dealt with by projective- introjective defence measures leading to the formation of an extremely oppressive superego. Castration fear and a sense of guilt prevailed on oral, anal and phallic levels. The oedipal conflict of all these phases had been centred and condensed around a series of traumatic experiences of parental intercourse and as an introjected ego-superego conflict. All of his delinquent activities represented displaced, symbolic attempts to destroy the parent imagos. At the age of four he tried to destroy the home when he set fire to it. His petty larcenies were directed only against his mother. He lived his bisexual life on the outskirts of crime, in the prostitute underworld. The ensuing sense of guilt exposed him to continuous humiliations, while his dullness helped him to bribe the superego by denying that he watched and observed his father's and his mother's, actually his first wife's, sexual activities. The association with her created the atmosphere of the incestuous sharing of the bad mother with another man who was wealthy, who could pay for her love. The climax of his criminal career was reached when he at last attempted to make the primal scene real again and had to bear the punishment for it. The plot and fact of the sexual blackmail put him in the childhood situation of observing the parental inter-

course which he then openly attacked. The result of this act was utter confusion in the prison; but even the punishment could not hamper him from consummating the incestuous desire by his marriage with the prostitute.

The dynamics of his second marriage, a relatively happy and successful period in his life, were reflected in those positive periods of his transference neurosis when the phantasies and hallucinations were built up about the good mother and father imagos who accept and give love and do not harbour revenge. But the giving up of his former way of projecting the unsolved oedipal conflicts in the external world had its repercussions. The ego was not strong enough to cope with the superego pressure on the one hand, and, on the other, with the id impulses that were organized into seemingly healthy ego aspirations. The unconscious incest and its repercussions in the new relatively normal set-up could not find outlet in the old, alloplastic, delinquent way, hence the ego, strengthened with the 'good' identifications, tried an autoplastic solution. This new solution proved that the patient's ego was still rather immature and the new defence measure was an extremely archaic one, viz., that of hallucinations.

Summarizing this man's development from his transference neurosis, it would appear that his delinquency was an attempt by the immature ego to cope with the pressure of an extremely harsh superego. He tried to overcome the crucial point of his oedipal conflict, the primal scene, by alloplastic, delinquent solutions. He externalized it and tried to control it by wholesale projection. This led to such an increase in his sense of guilt that it resulted in a moral-masochistic breakdown as its climax (imprisonment for sexual blackmail). This and the relative enrichment of the ego with good identifications forced the patient away from his 'delinquent defences', and gave the strengthened ego an opportunity for a partly more mature solution; i.e. the internalization of the conflict. The fight against the superego was continued in this form, but the ego again showed its relative weakness by the recourse to psychotic mechanisms.

Discussion

After describing these two cases, the next step is to assess to what extent these observations and the assumptions based on the transference phenomena can be used for more general purposes (Burt, 1948; Healy and Bronner, 1936). These two cases can be regarded as two prototypes of delinquency that developed from psychological motives and thus give justification for a psychological explanation. The two types I have referred to are: (*a*) the extremely spoiled, and (*b*) the extremely neglected child. The analysis of these two cases gave the opportunity to investigate, through the transference situation, the psychodynamics of these cases and to draw theoretical assumptions.

Aichorn (1935) is to be credited with the discovery that the delinquent has to be made neurotic so as to force him to suffer consciously and pave the way for recovery from delinquency through neurosis towards health. My cases definitely prove the validity of this therapeutic assumption. These men slid into delinquency from their infantile neurosis and its elaborations. They gave up delinquency only to become neurotic and even psychotic. There can be hardly any doubt as to the causal connexion of these phenomena.

The possible objection that they were rather abnormal individuals does not detract, in my opinion, from the value and general validity of these cases. My experience has convinced me that the normal criminal does not exist. My own observations and those of others convince me that every asocial individual is or has been sometime in his life, especially in his childhood, in a state of major emotional disturbance of such duration that the individual is not left without some kind of psychic scar. Whether this disturbance took the form of a sharply circumscribed neurotic syndrome or a more or less vague behaviour anomaly is

from the psychoanalytical point of view of little purpose (Friedlander, 1949). The real issue is the existence of a definite disturbance. Whether we can or cannot press it into a sharply defined clinical picture is not the point.

If we try to list the common features of both cases we may state these as follows:

(1) Both suffered from an infantile neurosis. The card-sharper from separation anxiety, the blackmailer from diffuse anxiety and depression.

(2) Both behaved antisocially by the age of four. The card-sharper was over-aggressive, the blackmailer committed arson.

(3) Antisocial behaviour in pre-adolescence and adolescence; the card-sharper played truant, the blackmailer stole regularly.

(4) The mother imago was extremely dangerous, and the superego had incorporated more qualities of it than of that of the father imago. The card-sharper's mother became a dangerous figure because her intruding breast was felt as extremely dangerous. The blackmailer's mother was the source of an exclusively bad imago because she did not give love and so opportunity for helpful ego identifications (Klein, Heimann, Isaacs & Riviere, 1952).

(5) A relatively grim (aggressive) superego could rage against a relatively weak ego that was inefficiently bolstered up with 'good' mother identifications.

(6) Thus, as would be expected theoretically, one characteristic feature of their neurosis was depression.

(7) Their antisocial attitude, as well as their neurosis and psychosis, showed marked paranoid, even paranoiac (the blackmailer) traits in every period of their life.

(8) The projective, delinquent defences were carried out because the ego was not strong enough to cope with the superego pressure. The available identifications did not permit either reaction formations or sublimations. Antisocial activities aimed at mastering the oedipal situation on all levels of organization, but basically on the oral level due to the traumata in their earliest mother relations. This mastering of the oedipal situation was carried out in a rather archaic projective way that led to clashes with society.

(9) During their chosen delinquent acts, or immediately following them, they were in a state of orgastic pleasure in the case of the card-sharper, or in that of ecstatic confusion in the case of the blackmailer. In the first case the elation was outspoken. The feeling of mastery and happiness were connected with giddiness and a feeling of being happily lost, but secure. (That always happened when he replayed the games of the night in bed at home and ate at the same time.) It came to expression in the transference in those instances when the analyst represented the harmless giving mother. The extreme happiness joined with the feeling of being happily lost in a secure way appeared in the transference of the second case (the blackmailer) only in short flashes related to the inextricably bisexual imago after he felt he had mastered it and had become united with it.

(10) There was in both cases deep yet seldom refreshing sleep. In the case of the blackmailer sleep was the pre-eminent escape from reality; his major aim was to sleep as much and as often as possible. Lewin's oral triad (1951) (devouring-being devoured-sleep) seemed to play an important role in the deepest dynamics of their delinquency.

(11) Their antisocial activities aimed at reaching ultimately this state of elation as defined above. When it repeatedly failed, delinquency had to be given up, and depression, incompatible with criminal activities during their actual occurrence, and manifest anxiety followed.

Summarizing the main trends that were at work in these cases, delinquency was seen to be a manifestation of paranoid, projective defences that aimed at elation, so as to avoid in that archaic way the fear of an extremely cruel superego which originated from an unusually dangerous mother imago. In their childhood and youth defences of phobic and

depressive character were attempted as autoplastic efforts. These were not sufficient to maintain the mental balance and a regression took place to the alloplastic, delinquent measures described. A maturation or a strengthening of the ego enabled it in the first case to renew phobic and depressive defences. The second case took recourse also to autoplastic defences, hallucinations; but in a paradoxical way the relative strengthening of the ego in this case led to the manifestation of a psychosis.

These assumptions imply that a delinquent has a less synthesized, a relatively (in relation to the superego's strength) 'weaker' ego than a neurotic. In other words, his superego, and hence his sense of guilt, because conceived in the most archaic oral terms, is relatively stronger, i.e. more dangerous to the ego, than that of the neurotic.

It is a much harder task to compare the delinquent's ego with that of the psychotic. I would only remark that both delinquent and psychotic have in common the possession of an extremely harsh superego and a relatively loosely synthesized ego. Thus both are prone to the very archaic defence measures that provoke passionate retaliation in our society. The second case seems to suggest that antisocial activities may serve as a defence against the outbreak of a psychosis.

If my considerations are correct, they would explain the fact that most juvenile delinquents spontaneously undergo a process of self-healing and 'grow out' of their delinquency. The upsurge of libido in adolescence revives the problem of incestuous conflicts and gives ample opportunity for unsatisfactory solutions. At the same time the libidinous wave inevitably stimulates the introjection of 'good' imagos, since the libidinal impact biologically exceeds the aggressive impact at that age. This helps the establishment of more realistic, less incestuous, object relations. Thus the way is paved for a change within the ego and superego structures. If the early imagos, especially that of the mother, are extremely dangerous, there are two possibilities, viz., (*a*) to stay delinquent, i.e. follow the old alloplastic defences, or (*b*) to become neurotic or psychotic and still incapable of adopting adequate sublimations.

My observations contribute to the assumption that has been stated by several authors (especially Bowlby, 1947), that the relations with the mother are of paramount importance in the aetiology of delinquency. Furthermore, they stress more precisely the importance of the first three years as vital years in the development of asocial behaviour (Bovet, 1951; Bowlby, 1951).

This consideration implies firstly the role of prevention in earliest childhood, and secondly the urgent, loving, positive help that is needed by juvenile delinquents. Prophylaxis cannot be carried out effectively without adequate training being acquired by the doctor, teacher, magistrate, social worker, and, most important of course, the parent (Reiwald, 1949; Glueck, 1951).

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THE FUNCTION OF GROUP PLAY DURING MIDDLE CHILDHOOD IN DEVELOPING THE EGO COMPLEX

By EVE LEWIS*

Introductory summary

It is hoped in this paper to make some contribution to the study of ego development in childhood. Special reference will be made to the relationship of the ego to the totality of the child's potential, the self matrix or 'whole' from which the ego gradually emerges as consciousness increases. Fordham (1947, 1951) has recently published some most important observations on this mental phenomenon, mainly in connexion with infancy. The following notes are concerned with the same theme in the succeeding period, those years in the child's life which, broadly speaking, lie between the 8th and 12th birthdays. Up to the present the tendency has been to regard this stage of growth as chiefly extroverted and realistic in character, a period during which there is relatively little activity from the collective unconscious. It is certainly true that the most universal and striking feature of child behaviour, during these years, is the strong impulse to congregate in groups whose robust and noisy proceedings give little apparent evidence of serious intention, whether conscious or unconscious. This paper will, however, try to show that, in secret introverted play, the children do at intervals have most creative relations with the unconscious. Amongst others it appears that at certain times the group or 'gang' of children is spontaneously moved to concerted action, based on a primordial image, which action brings about an enrichment of the ego complex for each individual member of the group. It is further suggested that such occurrences are the direct outcome of group association, and that the essential unconsciously determined function of the middle childhood gang is to promote exactly these kinds of experience in the service of ego development. The closely cohering gang may be said to evolve, at certain moments in play, a group 'self' that invokes and uses primordial images which are meaningful to the individual children, and afford experiences without which they could not grow psychically. Whilst group play, in its more extroverted aspects, has also many creative purposes, it seems probable that there is none more important than that of promoting a bland façade behind which the inner, hidden life is communally lived, as the children create and act a succession of myths appropriate to their stage of development or special emotional needs. The most imperative need during the fifth year, is that of making a greater separation from the mother than was exacted earlier by the incest prohibition. As middle childhood begins, the child must take definite steps towards becoming an individual and responsible person. In the service of ego development he now seeks to leave the comfort and security of the infantile relationship with the mother for the perils and uncertainty of an equal status with his peers. Henceforward other children, as weak, as ignorant and in many ways as lost as himself must be the fundamental psychic support, the advisers, the comforters. And during these years a great modification of conscious attitudes is required. As a result we find that, contrary to the general belief in regard to middle childhood, the archetypes are frequently activated, and in such a way that the immature ego of the individual child has to face tremendous psychic adventures in the course of attaining the degree of integration proper to the end of the period.

* Psychologist to Exeter Education Committee Child Guidance Centre.

The 'gang' composition and types of play

(i) *Composition*

There are certain marked differences in composition and functioning between the boys' and the girls' gang. The boys' is usually larger, consisting of from six to eight or nine children, and is a fairly close-knit organization. Boys seem to engage in more realistic activity than girls, often ranging quite far afield in search of factual adventure. The girls' group is relatively small, four or five being, as a rule, the maximum number, the children associating mainly at school or in the home of one or other of its members. From an early age they give more time to discussion as distinct from mere talking than is usual amongst boys until almost the end of the tenth year. Much of the girls' adventure is verbalized rather than enacted, consisting of communal day-dreaming and recapitulation of stories heard or read.

Contrary to general belief the gang, whether girls' or boys', is not composed of 'birds of a feather'. The members ordinarily belong to the same stratum of society and live within easy distance of one another. But within this very superficial homogeneity the children's group embraces different and diverse units. Therein lies its value and strength. It is essentially through a close association of opposite personalities that the corporate life of the gang enriches the individual ego by facilitating deep and varied experience. C. G. Jung's study of psychological types is now so widely known that it is not necessary in discussing typing in gangs to do more than recall his distinction of the two attitudes, introvert and extrovert, and the four function types, thinking, feeling, intuitive and sensation. The gang appears to select itself in such a way as to maintain a balance, usually of about three to one, between respectively extroverts and introverts, and to include representatives of all four function types. Every gang has at least one planner or leader, generally an extroverted thinker or intuitive; other children supply the sensation and feeling qualities necessary to develop the game. Most strikingly, every gang has its medium. In extroverted play he is usually a follower, but I have much evidence to show that he or she is the intuitive member who, towards the end of the middle years, introduces, or at all events verbalizes, the problems which the children discuss among themselves. Often the medium is the storyteller as, for instance, David Copperfield was at Salem House. As will presently be shown, the introverted intuitive may be the child who constellates the inner situation when the gang turns to introverted play and experience of the primordial image. The catholicity of the gang is highly significant and important showing as it does that, with normal children, there is at this stage of their growth, no discrimination between attitudes or functions nor, indeed, between other opposites. One sees, cheerfully and unquestioningly included within the ranks of the gang, children who are by adult standards almost grossly unattractive or abnormal—the schizoid, hysteric, and obsessional, even the pre-psychotic. Left to itself the gang rejects only two kinds of children, namely, those who are so anti-social that they spoil the play, and the potential traitor. The latter is the boy or girl who is still entirely contained by the mother and who is apperceived as being fundamentally unwilling to sacrifice the enslavement. Usually such children do not make any strenuous effort to join a group; but if they do the others will have none of them. They know them for the enemies of growth.

(2) *Extroverted play*

Extroverted play consumes most of the gang's energy. It is the activity with which adults are in a general way familiar, and to which psychologists have given considerable attention, e.g. the fighting and hunting play of boys, the doll play of girls. Here it only requires such description as will serve to distinguish it from the introverted counterpart. This turning of the gang to the external object gives evidence of being, though in a wider sense than he envisaged, what Karl Groos (1898, 1901) called preparation for the

serious business of life. He, it will be remembered, saw this kind of play as instinctively designed to perfect by repeated practice the particular activities which the child would later need to support him in the struggle for existence. But Groos, arguing from the play of animals, thought chiefly in terms of the child's physical and biological endowment. Whilst there is no doubt that physical skills are developed and biological urges receive some definition in extroverted play, our greater knowledge of the psyche now enables us to see that these gains are insignificant when compared with the great progress that the child makes in establishing, against his companions, his best attitude and functions. Observation of their activity shows that the children's main intention is to have a really good and exciting game. Therefore every contribution is quite uncritically welcomed provided that it does not infringe the inviolable rules nor give any one child a disproportionate superiority. Turns are taken in leading and following; at being 'good' or 'bad' characters, victors or vanquished, even male and female. Without interference, each child is allowed to approach his varying roles from the angle of his own ego, finding his feet ever more firmly in his companions' acceptance of what he has to offer to the total situation and the way in which he offers it. One may, therefore, say of extroverted play that it helps the individual child to differentiate as a person. The second point to be made is that it is characterized by much planning and discussion as the children debate the end that they have more or less clearly in view. It is, in effect, teleologically determined, and to a great extent consciously willed by children.

(3) *Introverted play*

In absolute contrast to this planned and relatively conscious extroverted activity, introverted play must be said to 'happen to' the children, and to happen infrequently by comparison with the daily games. A sudden impulse seizes the gang as a unit and the children are swept into a drama the whole disposition of which is entirely different from the usual pattern. There is no initial planning, no assignment of parts. Often hardly a word is spoken other than a few ejaculations. This is perhaps the most striking feature of the play; it comes out of silence and, with a remarkable flowing smoothness, proceeds almost in silence. Each child seems to know exactly what he has to do and when the play pattern changes, the various roles dovetail as neatly and exactly as the pieces of a kaleidoscope. The children are contained and purposive though obviously unaware of the end subserved. This containedness is very noticeable. Even if the play becomes destructive, it is clearly not because the situation has got out of hand in the sense that the children are just a disintegrated mob. True introverted play is that in which the gang can be seen to be moved by some whole impulse which transcends the individual strivings of its members and relates each to wholeness.

Though I have been so fortunate as to witness or be told much of this usually hidden gang activity, I do not pretend to account for the circumstances that permit it to come about. Some of the more superficial are fairly obvious. The gang must be well established and its members in harmony with one another. The children will probably, in the normal course of development, have reached a point where some major modification of consciousness is necessary. There must be no adult near at hand. Having stated these conditions, I now offer only impressions that I have gained in observing play. It seems probable that weeks or even months of extroverted discussion and games have at last posed to the children a broad problem to which they can find no answer in consciousness. In such a situation tension arises which causes an increase of affect and some friction within the gang. Since, however, the problem is one of general concern to the children as human beings, there will, in outer reality, be many evidences of possibilities for its solution. I am led to believe that the gang medium, involved with his fellows in the common problem, unconsciously apperceives something of this evidence and, by word or

deed, sets in train play through which the children relate to appropriate archetypes.

At the risk of appearing repetitive I must again emphasize the smooth, forward sweep of this introverted group play. It is obvious that the ego-awareness of the individual children is in a state of suspension. But it is not overwhelmed or obliterated. The game has 'happened to' them; no voluntary action of theirs has brought it about or will determine its course. Yet they are in no sense 'possessed' or 'beside themselves'. Collectively they are experiencing an image which transcends consciousness and the unconscious, whilst holding the two in unity. This image is, I suggest, the group 'self' integrating for the moment the personality of each child and fostering ego development by uniting archetypal awareness with consciousness. Behind the image may lie the 'self' of each individual, vaguely apperceived. That the themes of such play come from the collective unconscious there is no doubt. Often, to the onlooker, they have a terrifying quality. One can well believe that a single child, caught alone by such an invasion of archetypes, might have great difficulty in re-establishing the primacy of the ego.* It is here that the gang association is of fundamental value. The experience in depth is necessary, since the children must separate from the collective in such a way as to be able to withdraw many projections from the parents and other figures in reality. They also require, for fullness of development, relation with the inner, inherited awareness; yet the ego of each child is still weak, though sufficiently realistically-orientated to be afraid of the highly irrational. But the company of his fellows both evokes the great and terrible, and renders it bearable. This same company, by virtue of its collective normalcy, enables the individual child when the play is ended, to re-establish, with a richer content, the primacy of the ego.

* Consider, for example, the agony of St Thérèse of Lisieux, a solitary child destined for great sanctity, struggling with the images of the 'devouring parents' and her own 'stealthy retrospective longing' (Day, 1951).

Thus we see that introverted play is communal experience in depth, unplanned, largely unverbalized, and subserving a total purpose beyond and above the comprehension of its participants.

Group therapy

As the play which I am about to describe was in two instances that of groups artificially constituted in a Child Guidance Centre, it seems necessary, at this point, to make some comment on play therapy under such conditions. Historically it is of very recent growth, being a product of the last World War and, as Klapman (1948) points out, the various methods so far recorded have been decided upon, when and where they are used, rather by intuition than by exact indications. A most important study of this way of treating certain kinds of disturbed children has been given by Slavson (1943). He is primarily aware of the child as a social being, living in an organized community, and his work has been mainly concerned with children who have become asocial or antisocial because they have been rejected by parents, family, school or gang; or those whose capacity to form social relationships is impaired by over-protection at home. He endeavours to modify the self-centredness of the withdrawn or aggressive child by drawing him with others into a kind of family circle where members work, play, and take a meal together at the end of each session under the guidance of a 'leader' (the therapist), a neutral, permissive parent figure. The activity of these groups appears to be an extension of 'recreational therapy', and the play to follow the lines of what I have called the 'extroverted' aspect of children's group association. Slavson does not record anything which resembles 'introverted' play based on primordial images, and, for several reasons, one would not expect to find it in his groups. In the first place many of his young patients have passed the gang stage of development, whilst others, though still in middle childhood, were not grouped with companions amongst whom such play could develop. In the second place, I am in-

cined to think that the presence of even the most 'passive' adult would inhibit the play from the very fact that he would be, however benevolent and permissive, still a parent surrogate, tacitly reminding the children of the outer world of reality. Moreover, so much plastic material is supplied in Slavson's groups that the attention of the children is necessarily directed outwards.* This is, of course, as it should be where the aim of the therapist is that of helping the patient to adjust to the community by acting out in the group 'fantasies about his relations with unconscious objects (the residues of unresolved infantile conflicts) which are being transferred to the objects of his present environment' (Ezriel, 1950; see also Foulkes & Lewis, 1944). The value of Slavson's groups in securing a good social adjustment is amply demonstrated, and it is probable that deeper psychic awareness was often activated for the children and satisfactorily experienced without their or the therapist's realizing what had taken place. It may be of interest in this connexion to record that the clinic with which I am associated once held a group of eight adolescent girls which worked very much like that described by Slavson (1943, pp. 321–6), by being devoted chiefly to discussion. We introduced one modification. Whilst the girls talked they also painted, sitting either round a table or at separate easels in a fairly small room. These paintings showed very little apparent connexion with the topics under discussion and seemed to come from the collective unconscious, setting forth many primordial images. For example, during several sessions in which the children were concerned with everyday problems in connexion with their mothers they produced a number of paintings of trees, seascapes and at one stage witches, in which the archetypal image was plainly to be seen. A most interesting feature of the work was that, towards the end of a cycle of paintings connected with collective material, it often happened that one or other of the girls would survey the subjects pinned up on the wall, and make some almost passing comment which interpreted their content. This group was in effect working on two levels, the children discussing and working out problems in the personal unconscious, whilst also exteriorizing through their paintings material from the collective.

The two clinic groups described below were very different from this association of girls and from Slavson's groups. They were constituted by the psychiatric team of children still at the gang stage of middle childhood and, though we had no conception of the nature of the play that was to follow, we did hope to use therapeutically this natural tendency of children of this age to develop fantasy amongst themselves.* In order to foster this play I was very much more passive than Slavson's 'leaders'; I sat quietly in a corner and, in order to let group play develop as it might in a natural gang, only spoke when addressed by a child. After a few sessions the children hardly seemed aware of my presence. When, however, 'introverted' play suddenly sprang up it became apparent that archetypes of the mother were projected on to me, and that my interpretations of the fact enabled the boys to separate themselves without fear from the primordial images. On the one hand I was no more than a puppet or a piece of clay, though on the other I served an important purpose as an adult who valued and respected their play,

* It will be seen that, in the clinical groups described below, string, a few sticks, the wherewithal to make fires, were the only materials needed to give the children profound inner psychic experiences.

* Dr Fordham has commented to me on the fact that all these children, although chronologically between the ages of 8 and 11, were really working through the problems of small infants, and he questions my classing their experiences as being appropriate to middle childhood. I think, however, that if a child does join a gang this is a proof that, though there may be an infantile fixation somewhere, he is on the whole developing psychically. The more generally infantile or the schizoid child does not in everyday life consort with his fellows in a gang. Either he refuses to join or is rejected if he attempts to.

and knew consciously the great myth that was being enacted.

Examples of play promoted by the 'group self'

Of the groups now to be described, 1 and 3 were the artificial groups mentioned above. The remaining gangs—one of girls, two of boys and one mixed group—were self chosen in the normal course of their members' everyday life.

The examples have been chosen to show different kinds of psychic experience gained by the children in phases of introverted play. The whole series of primordial images gives also an evolutionary picture of the myths enacted at different ages, and is as follows:

(1) A struggle with the devouring mother; boys, average age 8+.

(2) Killing a giant; boys, average age 9+.

(3) The Prometheus myth re-enacted; boys, average age 10+.

(4) The rescue of the woman; girls, average age 11+.

(5) The sacrifice of the weak member; boys, average age 11+.

(6) Worship of the 'Unknown God'; boys and girls, average age 11+.

(1) *A struggle with the 'devouring mother'* (*Clinic group, boys*)

The boys in this group, as it finally established itself, were all enuretics with various anxiety or behaviour disorders. Originally there were eight members but, from the outset, two boys did not fit in and were removed after the fourth session as the other children cold-shouldered or quarrelled with them. The six who remained were all the sons of over-protective mothers; those rejected were, on the contrary, unloved children. This in itself gives rise to the interesting speculation that a gang may unconsciously select itself—amongst the other considerations already discussed—on the basis of the children's having some particular psychic duty to perform.

After nine sessions of lively, extroverted play with plasticine, paint and toys accompanied by incessant and very noisy chatter, the boys began to light fires. At first these were small and easily contained in sand trays; but during the third fire session the children planned to bring the following week, paper, sticks and even coal from home, and to light a really large bonfire in the open. This was duly kindled, the boys talking very little as they danced round it, jumped over it or passed hands and feet quickly through the flames. They were intensely serious in all that they did and, at the end of the session, told me rather indignantly that they were too tired to go back to school. The subsequent play suggests that this was some kind of initiation ceremony, for immediately afterwards the children turned, in four sessions of introverted play, to deal with the 'devouring mother' archetype. It is certain that the image of a spider had been in their minds for five weeks, as Laurie had told of a horrifying dream in which a tarantula first stung and paralysed him, after which it did the same to his mother. In the session following the bonfire the children came rather listlessly to the playroom, and did not settle. Then Willie pulled out the string of a toy crane to its fullest extent, looked at it for a moment and said to me: '*We* want more string—a lot.' I gave them two balls of twine with which, in complete silence, they wove entanglements all over the room. Willie then flung himself into one and cried out: 'I'm trapped:—Save me!' Immediately the other children copied him, struggling in the 'web' and calling repeatedly: 'I can't get out!' 'Save me!' 'Help! help!' and so forth, for over ten minutes. They were completely absorbed in what they did. No child spoke to another and none made any attempt at rescue. Neither spider nor fly was mentioned. I am quite certain that there had been no planning and that Willie actually mediumized the group 'need' when he said '*We* want string'. I had the twine unobtrusively ready for them at the next session and the boys fell on it at once, going through the same performance, again silently, apart from the same cries of distress. But, when I told them that their time was up, with no discussion

of any kind and led by Willie who had begun the play, they suddenly fell on me, tied me to my chair and ran out shouting: 'Now you're caught! You'll never get away!' At the next session they pretended great indignation at finding me free. Bill said: 'She's a bear! Shoot her!' and an elaborate drama of tracking and stalking began. This time, it will be observed, the children were united and preparing to face the evil figure. Their committal to the game was absolute; the only speech was cautionary, and they simulated great terror. Nor was this wholly pretended; for at one point I made a short, growling rush forward at which they scattered and ran, bumping into one another and knocking over chairs with cries of real alarm. Gradually they grew bolder and finally with a wordless, concerted rush killed me—not with their guns and sticks—but by *hugging me to death*. The climax of this play came seven weeks later, after the more usual and infinitely more noisy extroverted activity. Willie, the same child who had asked for string, took a puppet representing a witch and began to chase the others. This was snatched from hand to hand until each had had a turn at being the evil one. Again they showed real fear in their half-laughing flight from the current pursuer. When caught they clutched their hearts and pretended to fall dead; but quickly scrambled up again to hurl triumphant insults at the witch crying that she had 'never touched them'. Ultimately the puppet was dropped to the floor. Then, gathered behind two boys who had, by a single impulse, seized up soldier and sailor puppets, they drowned the witch in a pail of water.

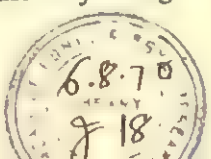
It will be noted that in each phase of play, the archetype of the 'devouring mother' is the cohering factor, and that the children finally assumed the dread qualities of spider, bear and witch before returning the images to the unconscious. Therefore they now had control over the evil in virtue of having experienced it within themselves. This would be the purpose for which the group 'self' 'lived' the boys—that they might integrate the knowledge of this particular danger into the personality. It must be recorded that, within a short while of this play, the mothers were reporting diminution or even cessation of the enuresis and other symptoms, saying that the children were generally more responsible, considerate and mature at home.

(2) *Killing a giant*

(*Natural gang, boys*)

This remarkable piece of play caused a gang of distinctly anti-social boys to do such damage to a concrete-mixer that they were brought before the Juvenile Court. The children had for some days watched the machine at work and were fascinated in seeing it swallow great masses of stones which presently re-appeared 'ground up and ready to be made into a road'. Then one boy interfering with it, had his hand cut off. Shortly afterwards the others, finding the mixer unattended, stoned it to such an extent as to break it. I already knew one of the gang, Simon, who had been referred to the Child Guidance Clinic for anti-social behaviour. This was the theft of large stones from rockeries and walls, the uprooting of shrubs and flowers, and of leading others into the same kind of mischief. His mother was pregnant at the time. Shortly before the stoning incident his teacher had told me of a most striking mime that he had performed. The class had been told to act what they felt on hearing a piece of slow music; Simon strayed round the room looking 'absolutely tragic' and moaning: 'I've lost my baby! My baby is dead!' He was quite willing to tell me what he could of the attack on the concrete mixer; it was not much but very significant. I was naturally careful to ask no leading questions. The children did not appear consciously to have thought of their mutilated companion. They had just come upon the machine and, apparently as one man, stoned it. No one had suggested doing so; he thought they had all 'begun throwing together'. 'It was a bit like killing a giant.'

Several associations come at once to mind in the face of this story. The 'giant' destroys by eating and creates from what it later ejects.



We are thus led to consider many creation myths in particular a Teutonic legend quoted by Fordham (1944, p. 85). 'The gods killed Imer the clay giant and they laid the body of the clay giant on the mill and the maidens ground it. The stones were smeared with blood, and the dark flesh came out as mould.'

The 'giant' apparently was a deity and created. But it also destroyed, first stones then part of a child. We are here reminded of Cronos, devouring his children and the swaddled stone which Rhea foisted upon him to save her last born. Again like Cronos, the 'giant' must disgorge all the sons and daughters he has eaten, and finally be slain by the thunderbolts of Jupiter (see Mackenzie, 1927, pp. 4–5). Here is creative revolution. It begins when the children will not be eaten by the parents, the new aerial gods by the earthly Titans, the spirit by the flesh, the self-aware ego by the unconscious. Revolution is begotten of progress and of consciousness. These boys were becoming more conscious and had reached the age when awareness of specific masculinity is for the first time strong. I learned that they had recently been talking about their physical make-up and speculating vaguely about child-birth. Contrary to general belief, I am convinced that children begin, as early as the ninth birthday, and in connexion with such matters as the above, to ask the question: 'How can I create?' By now the ego is well established and the normal child has separated from the mother. Thought turns not only laterally but also forward and is, on the whole, much more practical than the aspiration and day-dreaming of adolescence. But it is entirely ego-centric and often brutal, being largely devoid, especially in boys, of the generosity and idealism of the later stage of growth. The ambition is to be up and doing; to have the power to make and become. By the time he has passed his ninth birthday the child also finds that he really knows something, and is convinced that soon he will know very much more—everything. This is a period in which the conception of omnipotence is strong in a child. I hope in a subsequent paper to show that, though there is no conscious awareness as yet, he is moving towards the knowledge of good and evil and some prescience of this makes him feel god-like. If he were articulate, he might well cry with Apollo, though without any sense of dread at the responsibility involved:

> Knowledge enormous makes a god of me.
> Names, deeds, gray legends, dire events, rebellion,
> Majesties, sovran voices, agonies,
> Creations and destroying, all at once
> Pour into the wide hollows of my brain
> And deify me.
>
> (Keats, *Hyperion*, Bk. III, ll. 14–19.)

Simon's gang undoubtedly saw something of this in the concrete-mixer. Their games, and similar play in other gangs of this age group, show the same pattern of creation and destruction at an immense, primary level. On the one hand we have the thefts of stones and shrubs making chaos of ordered gardens. But at other times there would be great mixings of earth and sand, leaves, twigs and so forth with vague expectations of 'cakes' or 'bricks' or 'explosions' resulting. Everyone has seen this latter type of play and many will, with me, have been reminded of the alchemist at work. Thus it appears that, in their introverted play, this gang had 'god-like' moments of creating and destroying worlds, though with a bias towards destruction. The concrete-mixer received the projections of this tremendous sense of power. Then it went too far. A living breathing companion was nearly swallowed up. If we return to Simon's mime, we may say that the 'baby', the emergent ego, was in danger of death. So the group 'self' mobilized a game in which the 'giant' was stoned—attacked by the thunderbolts of Jupiter. In the death of this inflated figure the lost egos are returned to life; the manic sense of power is reduced to manageable proportions. Thus, again, we see the gang drawing a containing circle round a threatening situation. A sense of omnipotence is, I am led to believe from my knowledge of this age group, a natural inner phenomenon during the ninth year of

life. Why it should lead, as it did in the case of Simon's gang, to considerable anti-social behaviour is a matter that requires research. Every child therapist is familiar with the symptom, but knows there is no easy answer.

(3) *The Prometheus myth re-enacted* (*Clinic group, boys*)

This again was a symptom group. Its members were boys of good average intelligence who, though doing fairly well at school in most subjects, were exceedingly backward readers. In the first instance my intention was merely to have a remedial teaching group, using the making of 'worlds' with small lead toys as the basis for instruction. But after a very sullen boy had withdrawn, the play which developed was so striking that I let it take its course as a psychotherapeutic activity and gave up the teaching. Although they had been grouped together solely as backward readers, I quickly realized that each boy had always had a particularly close tie with his mother, owing to the absence of the father from the home setting. The mothers of Edgar and Will were widows; Ralph's father had been on overseas service during the first six years of the child's life; Richard's was virtually a broken home, so little was the interest taken by the father in his wife and children, of whom Richard was the only boy. None of the four had had any sex instruction and the mothers, who were very shy at the mention of this subject, each said that her son was 'very clean-minded', and had never shown any interest whatsoever in the matter. In the playroom the children showed themselves as emotionally immature and rather listless; at first one or other would often stop playing and fall into an obvious daydream. Richard and Will sucked their fingers while doing so; Edgar and Ralph bit their nails. They were slow in showing any group cohesion, probably because they were so few and because two, Richard and Edgar, were introverts. But they thawed very suddenly to one another and became a gang when Will told them why he could not learn to read at school. He complained, with tears in his eyes, that the sun blazed into his class room in such a way that the light, *reflected from the wall* on to his book and blinded him and gave him terrible headaches. (This was not in actual fact so; and the child was, in any case, nearly 11 and unable to read as well as a 6-year-old.) The other boys displayed extraordinary sympathy, and declared heatedly that it was 'a shame' to expect anyone to read under such circumstances. When we remember that the moon, symbol of the 'pure virgin mother', shines not of herself but from the reflected light of the sun, we are given an important clue to the nature of the difficulty affecting these boys. From their play, I was already aware that their mothers' pudor had doubly robbed them of their sight, for they showed very great conflict about looking deeply and with curiosity at anything which could be interpreted as of the body and especially of the genital zone. Psychologists often liken the eye to consciousness. But, for these boys, seeing and therefore knowing—that is becoming more conscious—was forbidden. Only by not looking could they demonstrate their continued innocence, or unconsciousness. The eye can also have a male significance and can substitute for the phallus (see Abraham, 1909, p. 179). This is obvious from the many myths and legends in which blinding, a symbolical castration, is shown as the punishment for incestuous or sexual looking. (Chinese myths of blindness caused by looking at a dragon. The Oedipus Myth. Lady Godiva and Peeping Tom.) So these boys were unable to see because they had been blinded, or castrated, for their impious fantasies. It will readily be appreciated what a fundamental bearing all this would have on their inability to read; for reading brings knowledge. Also, to be able to read one must be able to see.

Immediately after this realization of themselves as a group faced by a common mutilation the boys began a succession of extroverted activities, the unconscious intention of which was to free the repressed libido. This gradually led up to four sessions of fire play. Unlike the younger boys who had been quite

content to use matches, these lads spent the whole of one session trying to make fire by rubbing sticks together (see Jung, 1919, p. 90). Having lighted one the following week, *with a cigarette lighter*, they began to melt lead and throw the molten metal into water, examining the results most minutely, and seeing chiefly human shapes. I was at the time reminded of Prometheus creating mankind. Two weeks later, a purely coincidental happening was of great service to the boys, who were by this time free to make full use of it. From the playroom window, they saw a stretcher being carried into a nearby nursing home. They asked if the patient was going to have an operation, and passed from this to discussing operations and accidents. In the course of this they put a great number of questions about the body. Finally, Ralph wanted to know if I had ever had an operation. When I replied that my appendix had been removed, he was silent for a moment and then said detachedly, looking at my feet: 'I like those red shoes of yours best of all'—a remark which recalls Freud's statement that the foot can symbolize both the male and the female genital. At this Richard cupped his hands round his eyes, simulating binoculars and stared fixedly at me. Instantly the other three followed suit, chanting: 'I can see you! I can see you!' over and over again. It all happened so quickly that I was taken unawares; but my immediate and consistent impression is that they began the chant together. After some two minutes I said: 'Of course you can see me. There is no earthly reason why you shouldn't!' upon which they rushed out of the playroom to the adjacent W.C. where they all urinated together, very solemnly, and with the door wide open, though it just concealed them from me. They emerged and said goodbye with the utmost naturalness and simplicity. I felt that I had been present at a religious ceremony in the course of which they had symbolically received their sight. A month later I was given the opportunity to make an indirect connexion between being afraid to look and find out and the inability to read. The boys were immensely amused and rather incredulous, but they all had to admit that recently they had begun to make considerable progress in reading. Then Richard, who had frequently mediumized the situation, went silently to a cupboard where he wound a piece of cotton-wool round a meccano slat. Before I realized his purpose, the other boys had copied him and drenched the wool with methylated spirit which they set alight, afterwards carrying their torches in triumph round the room and through the house. Finally, returning to the playroom, they sat down and placed the torches erect between their thighs, close to the genital. They were concentrated and grave, reminding me instantly of Prometheus, after he had stolen fire from the reluctant gods. I take it that, in the binocular and urinating play, the group 'self' constellated in me the mother who permits her sons to have knowledge; but that, in the second episode, it showed them that a passive reception of the gift was not enough. Richard was secret and sly in his preparations, as if I might have forbidden him had I known what he was doing. Here, then, I was the 'pure' mother. But they risked my anger, in the inner certainty that once they had actively taken their knowledge, it could never again be withdrawn. Both games had the qualities of spontaneity and unanimity that characterized the other kinds of play I have recorded. Both took place under the guidance of a collective and integrating impulse.

(4) *The rescue of the woman*

(*Natural gang, girls*)

Two girls were the nucleus of this gang one of whom, Meg, was my informant about the play. Other girls came and went during the three years of the group's existence, and boys were occasionally included in the game to perform a special part in connexion with the 'rescues'. The setting was a colony of beach huts on an estuary, and the games took place chiefly in the winter when the huts were unoccupied.

As the girls approached their ninth birth-

day, a period of very tomboyish play began which lasted some eighteen months. It was almost entirely concerned with quite dangerous climbing and jumping. One child performed a daring feat and the others had to follow suit; then came another and more difficult escapade and so on. Meg later called this 'finding courage'. As far as I have been able to get the feeling of the play, it seems to have been that of aping or emulating boys rather than of actually fantasying themselves as male. At the same time the children certainly disliked the restriction of their skirts, and Meg at least took hers off, always playing in her gym knickers. The following winter's game was based on a serial film which the girls saw weekly. In this the heroine was, at the end of each episode, left helpless in a position of great danger from which she was duly saved by one or more men at the beginning of the next instalment. From this the girls evolved their 'rescue' game, which was played over and over again with little or no variation. They tied one another to flag poles on the beach huts, pretending that the tide would presently come in and drown the victims unless a saviour appeared. Then boys of about the same age as the girls were asked to come and perform the necessary rescue. Towards the end of the second winter's play, there was secret rivalry amongst the girls as to which of them would first be untied and saved from the sea, each child hoping greatly to be the 'favourite' of the boys.

All this play seems throughout to have been more unconscious and, with the exception of the very simple 'rescues', less planned and less complex than the activities of a boys' gang. As it was told to me, I gathered that the feeling evoked, whether of fear, anxiety or gratified feminine vanity, and the relationships established were the most important matters. It is interesting to note that the more planned rescue play was probably that in which the 'self' moved the girls most strongly. The earlier 'finding courage' has all the appearance of a masculine protest. The gang turned, as does the majority of normal girls during the eighth and ninth years, from doll play and delight in dressing up prettily, to a hoyden phase. The inference is that now, for the first time, the girl brings her masculine qualities up into consciousness and becomes identified with this side of her personality. The inner dynamic decrees this primarily that separation from the mother may take place and relatedness to the male become possible. Hitherto the girl has lived only in the homosexual intimacy of 'we two women' with her mother, and has apperceived man only through her eyes. Now she becomes active and protestant, first against the mother identification, then against her own passive feminine role. In company with her fellows she integrates valuable masculine qualities into her personality and gains direct heterosexual experience in the companionship of boys which is eagerly sought at this stage of development, when the play is of the hoyden variety. (At the same time, this gang, like most associations of girls, often reverted to more feminine activities throughout this period.) But the 'self' seeks to guard against the danger of too long continued envy of the male. The 'rescue' play of Meg's gang shows most clearly the girls' unconscious urge to establish for the more integrated ego that form of relationship with the male which is most fulfilling for both sexes. So the passive woman waits, in danger of being engulfed again by the mother, or by the unconscious, unless the man comes to set her free and quicken her into life opposite his active striving. It is the theme of The Sleeping Beauty, of Perseus and Andromeda, The Lady of Lyonesse and a thousand other rescue myths.

It will be noted that only in this gang, and in the mixed group where again a girl was the moving spirit, does the question of relationship arise strongly. These rather younger girls were concerned with human relations, the older with the spiritual. This is naturally to be expected in view of the fact that women are so much more interested in the personal than in objective facts and ideas. At the same time I have repeatedly been impressed, in

studying gang play, to see this feminine preoccupation emerging amongst girls as early as the tenth year, and whilst the tomboy phase was still at its height. It is this, I think, which accounts for the looser cohesion and general mutability of the girls' gang, and which makes girls appear to react less markedly in their play to either inner or outer reality. Actually the experiences of middle childhood are as profound for girls as they are for boys. But the girls relegate the facts to the background of the mind and unconsciously work out their problems through the infinite nuances of many projections upon the members of their immediate environment, being all the while delicately conscious of the personal implications.

(5) *The sacrifice of the infantile*

(*Natural gang, boys*)

The boys were all nearly twelve years old when this play took place. Rodney, the one member of the gang whom I knew, was an intelligent, thoughtful lad, already experiencing some of the psychic changes of pre-adolescence. His companions, as he represented them to me, appeared to be at about the same stage of development. The incident in question happened quite suddenly one evening when, chancing upon a much younger boy, they decided to 'sacrifice' him on a nearby bomb site. He was first tied to a post and 'stoned to death'. Then the gang lighted a fire near the post and 'burned him alive'. Actually neither stones nor fire touched him. But although he was quite unhurt and at no time in the least alarmed, his parents brought the gang before the Juvenile Court. Here, however, the magistrates dismissed the case, saying that the affair was clearly just a boyish prank. I think it is important to mention this since it shows the integrity of the game as the Bench saw it. Rodney gave me as full and frank an account of what had happened as he could; but there were the hiatuses and uncertainties that always accompany the child's recollection of play in which archetypal images have been strongly activated within the group. He knew that the gang had not set out with the intention of doing what they did. He genuinely did not know who had first suggested the sacrifice, and said that 'if it had not sounded so stupid, he would have felt that they all thought of it at about the same time'. As is usual in this kind of play there had been no planning and very little speech. No one, from first to last, had mentioned martyrs; but Rodney obviously assumed that his companions, like himself, had been vaguely thinking of 'St Stephen and the others'. He particularly pointed out to me what good shots they must all be not to have struck the victim once. The whole picture gave a strong impression of a rite, in which the boys had been impelled, by some intuitive knowledge of the truth that only by sacrifice can an increase of life be obtained, to symbolize the death of an infantile attitude as a necessary prelude to new and more responsible living. The lad was naturally unable to explain why the victim had been twice killed; but one can by amplification find much that is significant. There is in many mythologies the belief that men had once been stones. To give only one instance, Deucalion was said to have repeopled the world after the flood by throwing over his shoulder 'the bones (stones) of his mother, the earth, and they became men' (Ovid). In the Homeric Age, it was held that the most archaic men had all originated from stone, and were therefore earthy and servile rather than heroic figures, as the Greeks of the new culture held themselves to be. Where death by stoning is concerned we know that, among the Jews, it was decreed for adultery and blasphemy, both in the last resort sins against the parents. It is therefore legitimate to infer that Rodney and his gang slew the enslaved, incestuous infantile within them. Certainly the victim of stoning, buried beneath his pile of rocks, is a symbol of primitive, unspiritual stone man, with his backward streaming libido, returned to and entombed in his 'stoneness'—the devouring earth mother. The subsequent martyrdom by fire is, on the other hand, a symbol of resurrection, a re-enacting of the many myths

in which fire represents the uterus where children are produced (see Jung, 1919, p. 102). When we note that the gang burned the same child that had been stoned, we now see him as standing for the reborn libido, purified and refined—the child of the life-giving mother of heroes (Jung, 1919, p. 236).

The whole incident is a beautiful representation of the gang, impelled as a unit, to seek the psychic state of wholeness appropriate to boys of their age, and to seek it through sacrifice. The containing circle of the group 'self' is, I think, seen in the nature of the drama, and in the fact that so much robust play took place without the victim's suffering any harm physical or emotional.

(6) *The worship of the 'unknown god'*

(*Natural gang, boys and girls*)

The children in this gang were also nearly 12 years old when the final ceremony took place. They came from a sheltered social setting in which they had considerable access to books. One girl, Edith, was particularly interested in the myths of Egypt and Greece; but I do not think the play was any the more conscious for that. The gang was most active in the summer holidays when the children could play out of doors in a secluded orchard. During the previous summer their play had largely been based on the legend of the Argonauts, this in its turn having evolved from an earlier game called 'Caves by the Sea'. In this latter the children fantasied themselves as shipwrecked on the traditional desert island from which rescue was forever impossible. Here they lived in caves, sustaining themselves by fishing. They were therefore symbolically still unborn. Even when the Argo play developed during the following summer they in a sense remained in utero, since the ship mythologically symbolized 'the earth as a parent, containing in herself the germs of all living things' (see Guerber, 1909, p. 356). The crew, however, was heroic, seeking the fleece of the golden ram which had rescued Phryxus from the terrible mother. But, although the children's game usually ended in the capture of the fleece, this theme seems to have been subsidiary in their minds. The most important aspect of the play was that of battles and funeral rites over the slain. Small animals, such as were found dead in the orchard or fields, e.g. lizards, moles and birds, substituted for the heroes. Their bodies were 'embalmed' with such 'spices' as the children could obtain, and were laid in boxes full of scented flowers, with fragments of biscuit, chocolate and cake arranged round the heads 'to eat on the way to heaven'. After the interment the gang stood in a circle round the grave and sang:

> There is a green hill far away, without a city wall,
> Where our dear Lord was crucified, Who died to save us all.

The influence of a simple knowledge of Egyptian funeral rites is obvious; but I am satisfied that it was very superficial, being confined to what was done with no idea of the purpose involved. Nor did it appear that the dead creatures were consciously related to the totem animal-gods of the predynastic Egyptian peoples, though Edith, at all events, knew vaguely that these gods had the heads of animals. There is a primitive religious element in the play. In consciousness we see some conception of a life hereafter and formal knowledge of Christian hymns. (Actually all the children came from homes where Christianity was a living force.) But what lies in the unconscious is very different. The embalmed animals stood for the dead Argonauts and symbolize therefore the undying king-god, continuing to reign even from the tomb. But, since the original dead had been the children, we have again, softened and spiritualized by the passing of three years, the conception of personal god-likeness that Simon and his gang unconsciously held. I even venture to suggest that the hymn chosen removed the 'dying god' as far as was possible from the thoughts of the young immortals. It is also interesting to see traces of a primitive totemist culture running side by side with a solar myth, in so far as the children were inspired by Jason's quest

for the golden fleece. For instance, these children also had a kind of totem animal in an ass, which accompanied them in their games and was wreathed with flowers for a funeral. They gave it great respect for the cross on its back, said by legend to be a perpetual reminder of Our Lord's ride into Jerusalem on Palm Sunday. They invented many stories about this ass, one of which was that it had kicked Lucifer. Although there was so much unconscious material in the play it was nevertheless extroverted in that it was carefully planned and the general purpose clearly envisaged.

The following summer holiday saw the end of the gang as the children were destined for boarding schools and felt too grown-up to play very much. But they had a short period of discussing 'tortures' and came by way of the subject of martyrdom, to some quarrelling over religion. One afternoon St Paul's sermon to the Athenians was mentioned and presently the children 'found themselves'—I quote Edith—building an altar to the 'unknown god' under an apple tree. This was made with turves and profusely decorated with flowers. In front of it was a sacrificial stone upon which they burned biscuits, chocolates, and spice for 'incense'. They walked in procession round the tree and then prostrated themselves like Mohammedans. There was no praying or singing. The whole incident, including collection of the necessary materials, probably lasted about twenty minutes. But in this short time we see a religious ceremony very different from those of the preceding summer. The immortalizing 'spices' and the 'food for the journey to heaven' have been transmuted into a sacrifice and offered to 'the unknown god'.* From experience of the play and private discussions of many other children in this age group, I have formed the opinion that it is a period when—for the average child—an inner religious impulse is experienced which for the first time links up with all that has been learned in the home and at school. The mediating image is, I suggest, the 'self' relating to the God within. It would appear that, in the play here described, the children, out of an inner impulse, accepted death that they might have life, and have it more abundantly.

The sacrifice is made, with increasing depth and spirituality, by every gang in such play as the 'spider', 'giant-killing' and 'martyr' incidents here described. Nor are these isolated and unusual occurrences. If we knew more of hidden gang play we should continually find, in some form or another, 'self'-induced games in the course of which every child has access to his inner awareness and can relate it to outer reality. Thus the ego develops and is strengthened.

Conclusions

1. The most important finding appears to be that the period of middle childhood is one of great psychic growth. The child has profound psychic experiences behind the façade of his largely extroverted activities.

2. The gang organization is of fundamental importance to the child at this stage of development. It helps him to separate from the mother; to establish his best attitude and function; to enrich and integrate the ego by profound experience of inner and outer reality.

3. When a major modification of consciousness must, in the natural course of development, be made, the 'self' of the gang 'lives' the children, uniting consciousness and the unconscious in creative play experience.

* I recently told a Roman Catholic priest this story, and he recalled a similar piece of play by altar boys, which he had seen take place several years in succession at a retreat for priests. The children took candles, incense and flowers from the Church into a lilac grove and there made an altar, also to 'the unknown god', before which they performed a ceremonial of their own with the utmost gravity.

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METHOD AND TECHNIQUE IN THE TEACHING OF MEDICAL PSYCHOLOGY*

I. TEACHING METHODS IN PSYCHIATRY

By W. M. MILLAR†

The choice of teaching methods in psychiatry will depend upon many variable factors: the individual and group characteristics of the students, their educational and cultural background; the educational principles and traditions of the University, Medical School and Department of Psychiatry concerned; organizational and administrative factors such as the staff resources, teaching and clinical facilities, and curricular time; and current theory and practice in the field of psychiatry and cognate fields. Thus, any discussion of method inevitably leads to a consideration of educational aims, content of particular courses, student management and the like. In this connexion Levine has uttered the appropriate type of warning when, as Chairman of the Preparatory Commission of the First Conference on Psychiatric Education (1951), he wrote: 'One problem of such a conference is to avoid the Scylla of being hung up on vague generalities and the Charybdis of trying to cover the waterfront, of writing the content of individual courses or textbooks.' Nevertheless, I find it necessary to make brief reference to some general ideas, to give some hint as to my individual approach as a teacher of psychiatry in its broader implications and to comment upon the employment of particular methods in teaching.

There are three good reasons why I feel it important to adopt an empirical approach to the teaching of psychiatry (and by empiricism I mean the inductive-deductive process, as distinct from rationalism and also from 'trial-and-error' empiricism). First, in so far as psychiatry is a natural science, it is a logical necessity to approach it in the spirit of empiricism. Secondly, the learning process itself might be considered in empirical terms, as modern educational science seems to indicate. Thirdly, I feel that psychiatry is much in need of that humility and tentativeness which is born of a true scientific attitude.

Psychiatry is, of course, more than a natural science: it is also an art, a practical service and a profession. MacCalman (1953) stresses the fact that it is more than a single discipline. Walshe (1950), on the other hand, rejects the idea of psychiatry as a natural science at all and would prefer to place it among the historical sciences. It seems to me that we have allowed considerations like this to deflect us from our primary purpose as medical scientists, have kept open house to every fresh idea and discipline until there is no discernible body of knowledge that can properly be called psychiatric. Theories are produced, like Minerva from the head of Jove, full grown; dogmatic assertions are handed down as though engraved on tablets of stone; wide-ranging allusions, allegories and analogies fall from our lips with easy omniscience. We have become casuists and apologists, largely I think, because we have allowed ourselves to be side-tracked by the non-scientific elements in our specialty, and by the irrational demands of our patients, and sometimes our professional colleagues.

In my own approach to teaching I have endeavoured to convey meaning to my students by constant reference to the 'raw material' of our subject—the patient. There is nothing

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† Professor of Mental Health, University of Aberdeen.

within the patient too simple, too superficial or too naïve for them to observe. The theories and complexities will emerge with continued observation, critical judgement, reflexion and integration—self-imposed by the students.

I think we err in attempting to convey broad generalities to our students explicitly. I refer to such concepts as: the total personality; psychiatry as human biology; the mind body relation; the psychosomatic approach and the like. Important though these concepts may be at the level of specialist discourse (though this may even be doubted), they are not, in my opinion, *teachable*. Meaning must be given to the complex by the simple; to the abstract by the concrete; to the dynamic by the static and morphological; to generalities by particulars; to concepts by percepts; to the present by the past. I am aware of the many objections to such a standpoint: that working concepts are essential to avoid blind trial and error searching; that there is the danger of misplaced concreteness; that simplicity is too often the cloak of stupidity; that static psychiatry cannot possibly advance; that gestalten meaningfully exist without reference to their constituent parts; that the 'here and now' situation is more relevant than history. I am also aware of the objection that if we remove dogma and authority from teaching—as I have implied—chaos may result. Despite these objections my belief is strong that in science some degree of uncertainty must be expected! To quote Sir Henry Souttar (1950) 'The world of observation is a wonderful world....And yet if we are really to enter it and enjoy it to the full we must carry with it a spirit that seems its very contradiction—the spirit of adventure, of freedom from restraints imposed by experience, the happy irresponsible spirit of the child.'

Our aim must therefore be to stress the value of observation in the particular case, for experiment, and the development within the student of a capacity for critical thought and judgement. This emphasis upon the process of learning rather than upon the object taught has been referred to by Meredith (1950), and also by Lauwreys (1950) who says 'Success is measured, not by memorizing verbalizations but by the degree of purposive mental activity which (the teacher) arouses'.

Other ideas of a more general kind, which have determined the methods I have employed, should be mentioned.

The student

The natural resistances of the adolescent have been reinforced in the student by the general educational process, by many aspects of the medical curriculum, and by his long-term professional goals. Stronger resistances can be expected when he encounters the disturbing elements in psychiatry. There is therefore the dilemma that, if the teaching of psychiatry does not conform to the conventional authoritarian, examination-ridden pattern, marked anxieties and hostilities will be encountered. I think that we should all learn to tolerate as much anxiety as we can, for that conduces to an active critical process. And if reassurance is to be sought it should be in the quality of the personal relations with the teacher, and not in some established dogma, accepted uncritically.

The staff

We need more teachers in psychiatry who can give education priority over professional practice. These are men who would have adequate time and the flair for developing techniques and who could cause their students to 'catch fire' with their own enthusiasm in the learning process. The qualities required are those of any effective leader, and the methods of 'student-management' are those familiar to all successful leaders of men.

Organization

A properly equipped department within the Medical School is essential. Here there should be consulting rooms, offices, laboratories, and tutorial rooms. The Department should be based upon the general hospital, and there should be close liaison with Mental Hospitals and other psychiatric units, perhaps by a free

interchange of junior staff within these units, perhaps by establishing out-patient departments common to many units. In the wards and in the out-patient departments there should be close links with other clinical departments. Here, also, there could be some interchange of junior staff with such departments as medicine, gynaecology, dermatology and paediatrics. These topographical and organizational aspects are of the greatest importance in establishing in the mind of the student that psychiatry is an integral part of medicine.

The curriculum

I was amazed to find, in a recent tour of U.S. Medical Schools, that so much curricular time was devoted to the teaching of psychiatry. The average number of hours for the seventy-nine Medical Schools in that country was over 150. In two schools it was over 500 hours and exceeded anatomy as a major teaching subject. Most of the well-known schools offer courses in each of the four years of the curriculum. Few schools in this country exceed 100 hours psychiatric instruction, although this must be regarded as a bare minimum if it is to be regarded as a major clinical subject. Even then it would represent something like a quarter of the time devoted to medicine, and one-tenth to anatomy.

Provision should be made for intensive, extensive and long-term contact with the subject over several years of the curriculum, both pre-clinical and clinical. Joint instruction, given in the time allocated to other clinical subjects—for example medicine—can appreciably add to psychiatric teaching time, without appearing in the calendar.

Aims

A well-taught subject is like a good pair of shoes: it can be worn comfortably over many a rough road and for many a year. And it can withstand plenty of heavy use. We must remember that most students, after they leave their Medical School, rarely return to a life of study; some never again open a text-book or a journal. Professional practice contrasts sharply with student life. It is well that this contrast should be kept in mind by our teachers and that, therefore, the least concession be given to the demand for purely technical or professional education. Undergraduate life should, in a sense, be memorable for its unreality. For this reason we should not be diffident in showing our students the highest that we know; the most specialized skill, the most recondite research method, the latest clinical discovery. The relevance of this is not that it will be of use to the student after graduation, but that it will afford an insight into the ideas and practices of his teacher; an insight stimulating him to move on in a spirit of adventure beyond his teacher, into an unknown future.

The aim then, is to induce what I think Keats called a 'negative capability' in the student: a fluid, plastic, receptive state free from rigid preconceptions and restraints.

Experience at Aberdeen

I propose now to give an account of our experience and practice at Aberdeen University as a basis for discussion, and to illustrate the ideas I have put forward.

The Aberdeen medical student is usually a local product; he comes from secondary school at 18 and remains at the University for six sessions. Every social class is represented, notably the farming and fishing communities. There are a few students from other parts of the country and from the colonies. The optimum number in any one year is seventy.

The first introduction to psychiatry is in the third year. During the eighth term there is a lecture course of twenty hours with three hours practical instruction in small groups. Originally the aim of this course was to introduce the student to normal psychology while he was studying anatomy and physiology—on the assumption that, as anatomy and physiology are to medicine, so psychology is to psychiatry. This view is no longer held, partly because of the rather obvious dichotomy that is implied, partly because

it is unwise to think only in anatomical and physiological analogies, and partly because it tended to perpetuate the worst features of what I might call the 'student-corpse relationship'. The theme now elaborated is that of development, both in its maturational and in its learning aspects, with special reference to children. I find that students are more prepared to deal objectively with the experiences of the growing child than with those of the adult, with whom they may become too disturbingly identified. An understanding of the phenomena of development leads naturally to a clearer grasp of the historical factor in all psychiatric illness.

We take part in the combined introductory course in clinical medicine in the ninth term, i.e. when the student first comes up to hospital. Here we discuss the meaning of illness, disability, and the disruption of life patterns caused by these: what it means to the patient to come into hospital, to lose his job, to be separated from his family, to encounter the doctor and the nurse and so forth.

In the fifth year there is a systematic course of lectures of forty hours over two terms; an intensive clinical course in which the class is divided into groups of eight to ten for intensive daily instruction—each group for two weeks; and weekly attendance at the two local mental hospitals during the summer term—in all some ninety hours in that session.

I shall not describe the content of these courses except to say that it does not differ significantly from those with which I am familiar in this country and in the United States. Perhaps a greater emphasis is given to what is known in the United States as an 'analytic orientation' than in some centres in this country. The emotional disorders in ambulant patients and in general hospital wards are dealt with more thoroughly than the psychoses, but these latter are not in any way skimped. I think it premature to lead the student far away from the individual clinical problem. Social and cultural factors, and the problem of prevention arise out of the consideration of the clinical problem. Case material is as varied as we can make it to give the student a grounding in phenomenology, nosology, distribution and incidence of nervous illness. In addition to the clinics in the general hospital wards, patients are brought to the Medical School from the mental hospitals for demonstration.

Description and evaluation of methods employed

The lecture

Properly planned and delivered, I think that the lecture still has a place in teaching. Meredith (1950) has given a beautiful defence of the lecture as an art and I agree with him that, given vitality on the part of the lecturer and morale in the group, much can be taught in this educational occasion for human interactions. I would add that duplicated lecture notes, full enough to allow the student to sit back and enjoy the occasion and to enter into discussion, are of great value and much in demand.

The lecturer may employ many devices to sustain interest and activity. In addition to the common props—blackboard, charts, lantern slides, we have employed sound recordings, both on tape and disk. Sound records are of value in illustrating various themes: mental mechanisms, clinical signs such as paranoid ideas and obsessional ruminations, speech disorders in children and in organic states. Disks may be played easily on a portable player, with satisfactory quality. Tape records are less satisfactory unless a studio type recorder can be relayed from the department to the lecture theatre as we have recently been able to do in our Department in Aberdeen. In some cases it is possible to demonstrate patients to a large lecture class, but this is not desirable or particularly useful.

Case demonstration in small groups

This has proved by far the most effective form of teaching. Elsewhere, Valentine and myself (Millar & Valentine, 1952) have described our set-up for this purpose, making

use of the one-way vision screen with the patient and interviewing doctor on one side and the students, with a commentator on the other. To achieve a natural effect both for patient and observers, so that there is the least intrusion of apparatus into the clinical situation, considerable thought and care must go into the construction of the unit, the choice of equipment and the type of clinical material to be demonstrated. It should be emphasized that this is not just a fashionable gadget and plaything, nor in any sense a refuge for the lazy or inefficient. I know of no method which can keep everyone more alert and on their tiptoes. And I know of no other method which can achieve such natural conditions of examination for the patient under demonstration. Normally two members of the staff are present during each two-and-a-half-hour session, one as interviewer and the other as commentator. At the end of each examination lasting for up to one hour, the interviewer joins the group and his colleague, and they discuss the case in detail. I find it particularly stimulating to 'exchange notes' with my colleague making a 'blind' formulation and then finding out whether this accords with the formulation he has already given during his commentary. If we wish to refer back to some item in the interview, it is always possible to play over the extract from the tape recording. For the most part we demonstrate selected patients referred to the out-patient department for the first time by general practitioners. Thus the student is given an insight into the nature of the psychiatric consultation taken to the point of provisional diagnosis and disposal. The fact that the psychiatrist is making his examination 'from scratch' appears to have a special appeal for the student: he can identify himself with the psychiatrist in his searchings, greatly aided by the remarks of the commentator who sometimes finds it a hard task to divine what is going on in his colleague's mind! Other types of case we demonstrate are: children in play; follow-up cases from the mental hospitals to discuss long-term problems of management and rehabilitation; patients exhibiting social problems, demonstrated by the P.S.W.; and patients under psychological testing. Mothers have been invited to join the student group and to discuss their children. Occasionally students have been invited to assist the interviewing psychiatrist. Recorded playbacks of these sessions are always a source of interest to the group, and not without value to the student himself. In all these instances much attention is paid to the techniques of interviewing and examination, but these can be further demonstrated in the 'set-piece'! This is the presentation of a co-operative patient whose case is about to be closed successfully. He is taken over his history in accordance with a prearranged plan, the commentator always being a jump ahead and alerting the students to make the required observations. This is followed by reports from the P. S.W. and the clinical psychologist on their findings, the formulation of the case, including a treatment plan, and finally a summary of the patient's progress and response to treatment. In effect the presentation is a short play, not without some dramatic appeal.

The value of discussion cannot be overestimated provided there is a tangible focus. Quite apart from the fact that discussion brings the student into more meaningful contact with his teachers, it drives home the facts and stimulates critical judgement and thought. Furthermore, it turns the attention of the student upon his own learning and observational processes. Our experience in this connexion is very similar to that of Johnson (1950) who encourages her students to engage in free discussion on the radiograph of a child's hand, and finds, in this simple situation, enough material to promote intense learning activity in her group. No doubt Dr Balint will give us more food for thought in this matter.

Case-clerking

I have encountered a good deal of difficulty in getting the students to learn much from this method. There are many difficulties in the way, and no satisfactory answer has so far been discovered. These difficulties include: lack of

student time; insufficient number of suitable patients to go round; lack of privacy for examinations; insufficient staff time to discuss cases in rewarding detail; patient and student resistances and embarrassments. None of these difficulties is insuperable, and I feel that in time this method will take its rightful place as one of the most valuable of all. In several centres in the United States, students are given psychotherapeutic assignments under supervision with results which compare favourably with those of trained psychotherapists. I feel that we could do something of the sort before long, and with profit. Meantime we give students in pairs one case to examine on two occasions. Each pair of students then discusses the case for about an hour with the doctor in charge, but this ratio of two students to one doctor can only be maintained once a week. Similar case-clerking is undertaken in the mental hospital visits where it is possible for the student to follow through a case for over two months.

It is hoped, in collaboration with the Department of Child Health and Social Medicine, to assign a family to each student for long-term study. This should afford a better chance for gaining insight into the social and family background of our patients, and of thinking more deeply of the historical factor in illness.

I do not propose to deal with other methods which have either been attempted with little success or remain untried. My experience of films, for example, is very limited, but this field might well be further explored.

I think that we all, as teachers, suffer from lack of proper training, and most of us from lack of time. Many of us are really quite ineffective teachers, but I think that we can all profit by clarifying our ideas on the aims and methods we employ, on an occasion such as this, and I for one welcome the opportunity. There is one factor which so far I have not mentioned, which has a considerable bearing on our teaching methods—criticism. This is the hardest thing for the teacher to acquire. But we can invite some criticism in different ways. First on an occasion like this. Secondly, by making use of recordings and discussion of technique with colleagues. And thirdly by inviting the opinions of students. Recently we carried out an inquiry into the student reaction to our course in Aberdeen. Here is a summary of our findings:

The value of psychiatry to medicine

It is one of the most important subjects in the whole of Medicine and the course should be extended	5
It should rank with the major clinical subjects	42
It should be considered as a minor specialty	23
It is only of slight value to Medicine	3
It is of no value and should be abolished	0

Fields of psychiatry

To me the most interesting field of psychiatry seems to be:	
The psychoses and mental hospital work	11
The neuroses, in out-patient and general hospital work	30
Psychosomatic disorders	21
Children's disorders	6
Psycho-analysis	3
Mental deficiency	0
Clinical neuro-physiology and electro-encephalography	2

Interest in psychiatry

I should like to specialize in psychiatry	1
I am very interested.	30
I am moderately interested	37
I have little interest	4
I have no interest	1

Learning conditions

My preference as regards teaching conditions is:	
Formal lectures for the whole class	11
Lecture-demonstrations for the whole class	18
Group demonstrations with the one-way screen	28
Individual case-taking in pairs with discussion afterwards from a tutor	15
Any other method (state the method)	1

The least valuable aspect of the course

Lecture Course as a whole	26
Psychology lectures in particular	17
Play therapy with children	8
E.E.G.	2
Case taking	1

Examples of adverse comments on lectures

'Due mainly to bad delivery.'

'Tedious, at times boring lectures—or stuff which the mass of us general practitioners will never see.'

'Dealing with aspects not directly connected with clinical psychiatry.'

'Any correlation of data which by its complexity is bound to be far beyond the comprehension of those who have not done Honours Psychology.'

'Much of the material can't be "put across" in a formal lecture.'

The most valuable aspect of the course

Clinical demonstrations with discussion	30
Meeting patients	3
Case-clerking in pairs	9
Illustrative recordings	2
Lectures (with no note taking)	2

Improvements suggested

More cases either demonstrated or individual clerking	5 10
Fewer lectures	10
More lectures	1
More group discussions	2
Extend the clinical course	2
Synopsis of lectures	6
Longer contact with cases and follow-up	3
More reference to general practice	4
Fewer cases presented. More intensive	1
Simpler language	1
More psychology	1
More vigorous lectures	1
More systematic presentation	1
More lucid presentation	1
More psychoses	1
Closer relation between P.S.W. and public health	1
'No suggestions that would be acceptable to the department'	1

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METHOD AND TECHNIQUE IN THE TEACHING OF MEDICAL PSYCHOLOGY

II. TRAINING GENERAL PRACTITIONERS IN PSYCHOTHERAPY*

By MICHAEL BALINT†

The general practitioner and psychotherapeutic skill

I am afraid my contribution is somehow out of place in this symposium. Both the other speakers are referring to their experiences in teaching medical students. I have nothing to say about this very important and complicated problem, as my experience has been obtained exclusively in post-graduate teaching.

This has made my task simpler in many ways. On the whole, qualified doctors are much better material for training in psychotherapy than are medical students. First, the training is not compulsory; it is not done for examination purposes. Doctors come voluntarily, a self-selective group, who want to acquire a particular new skill because they are interested in it. Secondly, a general practitioner has the invaluable advantage over a medical student that he has been knocked about. He has seen successes and failures, has witnessed a considerable amount of human suffering, which—at least partly—it was his responsibility either to alleviate or to make tolerable and acceptable to his patient. He has had time to test in his own practice what he was taught in his medical school and hospital, and in this way has become both less dependent on authority and less rebellious against it, that is, more humble.

Moreover, it is a well-known fact that a large proportion of a general practitioner's daily work consists of dealing with neurotic patients. Some investigators have estimated this proportion at 25% or 30% of the total work, others 50%, or even more. These figures do not mean that one-quarter or even one-half of the whole population is severely neurotic, but only that neurotics, visiting the doctor's surgery much more often than non-neurotics, take such a large slice of his time. This being so, it is a puzzling fact that the traditional medical curriculum does not properly equip the doctor for an important part of his work.

The realization of this shortcoming has been the cause of the ever-increasing demand in the last thirty years or so by general practitioners for some kind of training in psychotherapy. All over the world psychiatrists have tried to respond to this demand and have arranged various 'courses'. But in spite of hard work, vivid interest and enthusiasm from both sides, the courses on the whole have proved to be disappointing. In my opinion the reason for this relative failure is the fact that tutors and their students have taken over uncritically the forms and methods of the teaching hospitals and the traditional refresher courses; that is to say, concentrated almost full-time courses were offered lasting a couple of weeks or so, and the mainstay of these courses were lectures and ward rounds illustrated by case histories and clinical demonstrations. It has been completely forgotten that psychotherapy is, above all, a personal skill, and not theoretical knowledge.

The only way to acquire a new skill is to expose oneself to the actual situation and to learn there and then to recognize the problems and the methods of dealing with them. Being lectured to about problems may help, but cannot ever take the place of actual direct experience.

* An extended version of this contribution was published in *The British Medical Journal* (Balint, 1954).

† Consultant Psychiatrist, Adult Department, Tavistock Clinic, London.

A further reason for the failure of the traditional courses is that they have not taken into consideration the fact that the acquisition of psychotherapeutic skill does not consist only of learning something new, but inevitably also entails a limited, though considerable, change in the personality of the doctor.

Two tasks in acquiring psychotherapeutic skill

There were thus two tasks facing us when we launched this new experiment: we had to create conditions (*a*) in which the doctors would be able to do psychotherapy under supervision right from the start, and (*b*) which would enable them to view their own methods and responses to their patients from some distance, recognize some traits in their particular approach to their patients which are useful and might be understood and developed, and others not so useful which, when understood in their dynamic significance, might be modified or even abandoned. Although the two tasks are very closely tied up with each other, I must, for the sake of easier discussion, deal with them separately.

(*a*) As soon as one realizes that, as stated above, a great part of the general practitioner's daily work consists in treating neurotic complaints, the first task does not seem to be very difficult. The only thing one has to do is *not* to take the doctor out of his practice, to encourage him to go on doing what he has been doing in any case, and give him ample opportunity to discuss his day-to-day work.

So far, so good, but there are many difficulties involved here. As I have dealt with them in another paper (Balint, 1954) I shall only mention the most important one. This is the burden of responsibility which must be shouldered by the doctor when he realizes that his patient will be left in his sole charge, that he cannot 'pass the buck'. A specialist may say, or imply, that a patient 'is not my cup of tea'; 'I am not interested in this kind of illness'; 'I cannot find any justification for his complaints'; 'the illness is so slight (or so severe, or so advanced) that it is a waste of my time to treat the man; 'give him some reassurance and ½ gr. phenobarbitone t.d.s. and leave me alone', etc. The general practitioner, come what may, *must* see his patient through, sometimes even to the bitter end; he cannot 'refer him back' with an easy and empty cliché. It is also far easier to farm out responsibility, to say 'I have asked all the important specialists and none of them could say anything of importance; I really need not be better than the big-wigs' etc. No such escape is permitted in our course. Although the opinions of specialists are asked for and listened to, they are not accepted as final and binding; they are criticized for what they are worth and then the doctor in charge is asked what is to be done with the patient, and to accept undivided and unmitigated responsibility for his decision. Often the decision influences the patient's whole future. This fact, too, must be borne in mind.

(*b*) To start with, there is no proven, established method in general use for training in psychotherapy, that is, for helping the candidate to achieve the 'limited, though considerable, change in his personality' necessary for his new skill. As far as I know them, the various methods adopted are based on a kind of undefined apprenticeship. The only exception is psychoanalysis (and to some extent the Jungian school) which, in the last thirty or forty years, has developed a complex and inordinately long training system. In this connexion it is well to bear in mind that psychoanalytic training started as instruction, was then extended to include, for the purposes of demonstration, a short personal analysis as an adjunct, which then apparently got out of hand; personal analysis at present constitutes the most important and by far the largest part of the analytic training.* To use some rather strong words one could say that the only systematic training in psychotherapy, that is,

* See my paper: 'Analytic Training and Training Analysis', to be published in *Int. J. Psycho-Anal.*

the psychoanalytic training, has turned into a therapy with exaggerated demands. I am fully aware that here I am on largely unexplored and rather uncertain ground, but I think it should be stated that for the time being we have no agreed criteria of what are the minimal and the optimal standards in the desirable personality change necessary for a psychotherapist. The analytic system is working on the rather expensive principle of 'the more, the safer'.

As such a system and such standards were quite beyond the realms of possibility for our scheme, we had to devise our own methods and to define our own standards. The experiment is still in its initial stages and so my report must be considered as preliminary, and it is certain that it will have to be revised in the light of future experience.

The use of group methods

The mainstay of our scheme is the weekly case conference, about ten to twelve in each of the three terms. To secure intensive participation and, on the other hand, to obtain varied enough material, we found it advisable to have groups of six to eight doctors. In addition to the conferences, we offer any doctor who asks for it individual supervision of his cases, i.e. about an hour per week of 'private discussion'. As these supervisions are expected to run on well-known lines, I wish to restrict my report to the psychodynamics of the case conferences.

The use of group methods for training in psychotherapeutic skill was developed and tested to a fair degree jointly by Enid Balint and myself while training a group of social case workers for the Family Discussion Bureau, mainly for dealing with marital problems. The results of that project were used and further developed in our scheme.

I have already pointed out that we try to avoid, as far as possible, the ever-tempting 'teaching-being taught' atmosphere. Our aim is to help the doctors to become more sensitive to what is going on, consciously or unconsciously, in the patient's mind when doctor and patient are together. This kind of listening is very different from 'history taking', and here we encountered considerable difficulty when trying to free the doctors from the automatic use of this kind of approach. The main difference is that history taking is concerned almost exclusively with objective events, or with events that can easily be expressed in words; and towards such events both doctor and patient can adopt a detached, 'scientifically objective' attitude. The events that are our concern are highly subjective and personal, often hardly conscious, or even wholly beyond conscious control; also, as often as not, there exists no unequivocal way of describing them in words. Nevertheless, these events exist, and, moreover, they profoundly influence one's attitude to life in general and still more so to falling and being ill, accepting medical help, etc.

It may safely be said that these events, happening all the time in everybody's mind, are only partly sensible adaptations to the ever-changing environment; to a large extent they are governed by almost automatic patterns originating mainly in childhood but influenced by emotional experiences in later life. The first task for our scheme was to awaken in the doctors an awareness of these automatic patterns, and then to enable them to study more and more in detail how the patterns influence the patient's attitude towards his own illness, and on the other hand how they colour or even determine his relations to any human being, and especially to his doctor.

Another factor affecting the patient's developing relation to his doctor is the doctor's response, which also is partly governed by automatic patterns. The interplay of these two sets of patterns, whether and how they 'click' with each other, determines to a large extent the efficiency of any treatment. Its influence is less important in short-lived, acute illnesses, but almost crucial in chronic ones. In order to achieve a better fit, and with more patients, the doctor must have a wide choice of responses, which means that he must become aware of

his own automatic patterns and gradually acquire at least a modicum of freedom from them.

Intellectual teaching, however good and erudite, has hardly any effect on this process of liberation and general easing up. What is needed is an emotionally free and friendly atmosphere in which one can face the experience that quite often one's actual behaviour is entirely different from what has been intended and from what one has always believed it to be. The realization of this discrepancy between one's actual behaviour and one's intentions and beliefs is not an easy task. But if there is good cohesion between the doctors in the group, the mistakes, blind spots and limitations of any individual member can be brought into the open and at least partially accepted by him. The group steadily develops a better understanding of its own problems, both collectively and individually. The individual can more easily face the realization of his mistakes when he feels that the group understands them and can identify with him in them, and when he can see that he is not the only one to make mistakes of this kind. Moreover, it takes only a very short time for the group to discover that the technique of each member, including the psychiatrist group leader, is an expression of his personality, and so, of course, are his habitual mistakes.

Admittedly crises occur from time to time, when one or other member finds it difficult to accept the full implications of some of his ways of handling his patients, or the realization of some facets of his personality of which he had been only dimly aware. These, however, can be borne, as they are also group events and do not solely concern the individual. It has been easy to describe this state of affairs, but it is rather difficult to explain its dynamism. As long as the mutual identifications of the members are fairly strong, any individual member can face strains because he feels accepted and supported by the group. His mistakes and failings, although humiliating, are not felt as singling him out as a useless member; quite on the contrary, he feels that he has helped the group to progress, using his failings as stepping stones.*

It is a precondition of our technique to establish this kind of atmosphere in the group, and it is only in such an atmosphere that it is possible to achieve what we term 'the courage of one's own stupidity'. This means that the doctor feels free to be himself with his patient, that is, to use all his past experiences and present skills without much inhibition. At the same time he is prepared to face severe objections by the group and occasionally even very searching criticism of what we call his 'stupidity'. Although every report and case conference is definitely a strain and an effort, the result is almost always a widening of one's individual possibilities and a better grasp of the problems.

One of the most important factors in this kind of training is timing, which in the first approach means not to be in a hurry. It is better to allow the doctor to make his mistakes, perhaps even to encourage him in this, than to try to prevent them. This sounds rather foolhardy, but it is not; all our trainees have had considerable clinical experience, and this 'sink or swim' policy was justifiable. Apart from not undermining the confidence and dignity of the doctor, it has had the added advantage of providing ample material for discussion, since everybody was seeing patients all the time and was anxious to report his findings and discoveries, his successes and difficulties.

If the timing is sufficiently good, the doctor feels free to be himself and will have 'the courage of his own stupidity'. Gradually he becomes aware of the type of situation in which he is likely to lose his sensitivity and ease of

* In psychiatric terms, the depression caused by the realization of one's shortcomings must be fully accepted; identification with the common group ideal must remain now as before a desirable and attainable aim, but the group leader must watch very carefully when and how one or the other member is forced or allowed to slide into a paranoid position of the one who has been 'singled out'.

response, or, in other words, to behave automatically. Meanwhile, the reports of the other doctors have shown him what other ways might be adopted in similar situations. The discussion of the various individual ways, demonstrating their advantages and limitations, encourages him to experiment. (One practitioner announced the result of such an experiment thus: 'I have done a real "Smith" in this case—and it worked', meaning that he had adopted the attitude he felt Smith usually adopted.) Every such experiment means a step towards greater freedom and better skill.

Perhaps the most important factor is the behaviour of the leader in the group. It is hardly an exaggeration to say that if he finds the right attitude he will teach more by his example than by everything else taken together. After all, the technique we advocate is based on exactly the same sort of listening that we expect the doctors to acquire. By allowing everybody to be themselves, to have their say in their own way and in their own time, by watching for proper cues, i.e. speaking only when something is *really* expected from him and making his point in a form which, instead of prescribing *the* right way, opens up possibilities for the doctors to discover by themselves *some* right way of dealing with the patient's problems, the leader can demonstrate in the 'here and now' situation what he wants to teach.

Obviously no one can live up to these exacting standards without some shortcomings. Fortunately there is no need for perfection. The group leader may make mistakes, in fact he does quite often, without causing much harm if he can accept criticism on the same, or even somewhat sharper, terms as he expects his group to accept. This must be watched carefully and any hesitation by the group in exposing the leader's mistake must be pointed out. Obviously this freedom cannot develop if the leader tries to hedge or explain away his failings. It is a very wholesome sign if the group can run the leader down, even if they have some fun at his expense, if only they can do so without rejecting him or turning hostile to him.

Summary

A training scheme in psychotherapy is described in which the emphasis has been put on acquiring a personal skill instead of on teaching. The aim is to make the general practitioners aware of what their patient wants to convey to them, not so much by his words as by his whole behaviour, and of how their own general behaviour and actual responses influence what the patient can actually tell them. We have tried *not* to teach them what psychoanalytic or any other theory could say about the working of the human mind; instead we have aimed at enabling them to be free enough to feel and understand what is going on between the patient and themselves in their surgeries.

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METHOD AND TECHNIQUE IN THE TEACHING OF MEDICAL PSYCHOLOGY

III. SOME GENERAL COMMENTS

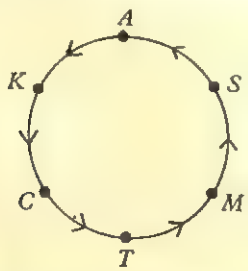
By G. PATRICK MEREDITH*

In the short time available I wish to make only three points in this symposium. I hope that the first point will be found useful, the second suggestive and the third provocative. Before making them I want to avoid any suspicion of sailing under false colours. Although I teach psychology I am not committed to teaching *medical* psychology—unless the term means 'psychology for medical students'. But my impression is that our symposium is in fact more concerned with this latter interpretation. In any case the line is hard to draw between the two.

(1) *Problems in teaching medical psychology*

My first point, which turns out to be a circle, was developed when I was serving on the Committee on Medical Teaching of the Royal College of Physicians a year or two ago, and, meeting with some acceptance there, it may have some value here. Medical teaching is an activity so immense, so varied, so complicated, that unless we can begin by agreeing to a systematic agenda for the problems to be discussed we are liable to find ourselves, like Stephen Leacock's elephant, rushing in all directions at once. My circle is not a teaching device but a discussion device.

The circle arises from the fact that the whole of medical research and teaching starts with the human organism as its initial datum and ends in the human organism as its point of application. Problems of medical education then fall into six groups according to the main divisions of this circle: A represents the actualities of human health and sickness; K the totality of medical knowledge; C the medical curriculum; T the medical teacher; M the media of instruction; S the medical student. A whole systematic philosophy of medical education could be developed from this pattern by considering first, the six points separately, their intrinsic natures and the problems to which they give rise; then the transitions from each point to the next: thus $A \rightarrow K$ is medical research and experience, $K \rightarrow C$ is the selection and design of the medical syllabuses, $C \rightarrow T$ is the sharing out of the curriculum among the various specialists, $T \rightarrow M$ is the selection and mastery by the teacher of the various media of instruction—words, pictures, films, clinical material, etc., $M \rightarrow S$ is the actual process of communication to the students, and finally $S \rightarrow A$ is the career of the qualified practitioner applying his knowledge to his patients. We could also consider the various feed-back processes by considering the arrows in reverse. Lastly we could consider the relations across the circle, such as $A \rightarrow T$ the relation between the medical teacher and the actualities of health and sickness or $C \rightarrow M$ the relation between the curriculum and the media of instruction, and so on. As there are fifteen such relations they cannot now be considered in detail. The whole scheme provides a systematic pattern of talking-points. The title of our symposium restricts us to the three relations $C \rightarrow T$, $T \rightarrow M$ and $C \rightarrow M$. But it should never be forgotten that each point on



* Professor of Psychology, University of Leeds.

the circle, and each relation between points, derives its significance from the whole circle.

For the teaching of medical psychology the problems raised by these three points on the circle are:

(1) *C*: What is to be the content of medical psychology?

(2) *T*: What sort of people are to teach it?

(3) *M*: What are the available media and methods of instruction?

(4) $C \rightarrow T$: Is the content dictated by factors outside the teacher's control or has he a decisive voice in its determination?

(5) $T \rightarrow M$: Does the teacher learn to handle his media and methods by trial-and-error or is any systematic training provided?

(6) $C \rightarrow M$: Are certain media and methods peculiarly fitted to certain types of content, and if so are the most fitting types actually used?

As a field of knowledge medical psychology is characterized by its intimate combination of objective and subjective factors; a complexity of relationships; and a high degree of emotive power with consequent evocation of resistance, disturbance and irrational reactions. These features clearly have a profound bearing on the choice of media. They suggest the following desiderata:

(*a*) That means must be found for allowing the consideration of subjective factors to arise naturally and obviously from factors which are both objective and compelling.

(*b*) That the media must be such as lend themselves to the displaying of complex relationships.

(*c*) That means must be found for dispersing high charges of emotional tension.

I suggest that these three requirements can be met, first, by allowing the topics of medical psychology to emerge out of the study of actual case material; secondly, by the more abundant use of visual symbolism in charts and films to expound theoretical relationships; and thirdly, by the use of small discussion groups to provide for the cathexis of emotional charges, and for the objectifying of subjective processes.

(2) *Child guidance as a starting-point*

My second point is concerned with finding the best starting-point in psychology. This is bound to be different for the medical student from what is appropriate for the non-medical student, for the simple reason that whereas the former has to be persuaded that bodies have minds, the latter has to be reminded that minds have bodies. I want to suggest child guidance as the best starting-point. There are many reasons for this suggestion, the chief being the following:

Intrinsic interest. The student is not long past his own childhood and may have younger brothers or sisters. The involvement of the parents in the child's problem focuses attention on a relationship of central importance in psychology. Direct interest is readily aroused.

Minimizing resistance. To plunge in at the deep end, either with the study of serious types of mental illness, as proposed by Ødegaard and Bowman, or with a direct penetration of the student's own personality, e.g. by psychoanalysis as suggested by Rado, or even by short-term personal analysis as practised at Duke University (see MacCalman, 1953), would, I feel, have disturbing effects on many students in this country where the prevailing attitude to psychology is still one of suspicion often amounting to hostility. The advantage of starting with Child Guidance is that at first the student can feel comfortably detached from the topic and by the time he comes to experience some personal identification this very fact means that he is gaining psychological insight.

Multum in Parvo. Practically all the psychological topics important for the medical student can be introduced via a study of Child Guidance, and also many associated educational, social, anthropological and administrative topics. These include the elements of child development, problems of adjustment, growth of intelligence, mental testing, scholastic problems, adolescence, delinquency, maladjustment, psychosomatic disorders, the

family, cultural factors, the psychiatric interview, play and play-therapy, psychiatric social work, parents' problems, treatments, clinic organization and so on. Many of these topics are sufficiently objective to make the going easy, at the same time they are all routes into psychology.

Specificity of syllabus. The foregoing goes some way towards meeting the force of Harry C. Solomon's warning to Prof. MacCalman (1953) that, in competition with other subjects exerting pressure on the time-table, psychology needs to be detailed and specific in stating its essential content. A course in Child Guidance could be given a syllabus, worded in such a way, as to compel attention. The majority of students will spend at any rate part of their careers in general practice, i.e. as family doctors, and child guidance gives an admirable introduction to family psychology.

Accessibility of data. The case-records of child guidance clinics are well organized, and are localized. The case-records of adult psychiatric patients are scattered throughout the consulting rooms and psychiatric wards all over the country. The case-records in mental hospitals refer in the main to the severer cases and are of more specialized interest than required in a course for general medicine. A single afternoon spent in a child guidance clinic, however, can be immensely informative, and in a series of visits an appreciable body of systematic knowledge can be gained.

Catholicity of theory. Child guidance has not been dominated by any one school of thought. Team work is the essence of its method and members of the team are not only trained in different disciplines but often have widely different psychological approaches. Only the bigot would regret this. For the student it permits a balanced study giving him time to settle his own attitude.

These are but a few of the arguments which could be advanced in support of my plea for child guidance as the best introduction to psychology. I hope I have said enough to start a discussion.

(3) *A basic problem in personality*

My third point is more difficult to state. Prof. MacCalman raised the problem in his recent paper (1953) to this section when he said: 'We, in this island, have allowed, through indifference or too polite evasiveness, the spirit and the soul of man to slip quietly from our concept of human personality.' How can we begin to discuss this without precipitating a battle between bigots and sceptics and how can we honestly evade it in discussing how to introduce medical students to the study of the mind? All I can do is to indicate an approach which I find at least acceptable to students and consistent with my own beliefs. Scientific psychology must needs base its investigations and practices on the principle of causation. On the other hand, if the affairs of man are completely determinate the things which I, for one, and many others, value most are illusory. But I am an empiricist and experience shows me that in any investigation of human affairs causal explanations never succeed in accounting for the whole of the phenomena. It is an entirely gratuitous act of faith to label all the residue as experimental error. Some of it probably is, and this position will be reduced as scientific psychology advances. But the somewhat turgid words of Kipling

If you can force your heart and nerve and sinew
To serve your turn long after they are gone,
And so hold on when there is nothing in you
Except the will which says to them 'hold on!'...

express a phenomenon familiar to doctors—the patient who takes an unconscionable time about dying, or even refutes the diagnosis by getting well again; or a phenomenon familiar to case-workers who meet individuals subjected to incredible physical, social and economic stresses, who by all the rules ought to be hopelessly neurotic, saying 'it's being so cheerful that keeps me going'. The doctor himself has no easy life and psychology ought to have something to say to him concerning that tough inner core, so essential to self-respect, which enables him to see it through. We have indeed

allowed this aspect of personality to slip through the meshes of our method—perhaps because the method has, for years now, been overwhelmed by statistics. In brief, what I try to offer to my own students is a concept of a dual psychology. There is a peripheral psychology which is deterministic and as rigorous as our scientific methods will allow, and which can point to the practical steps needed to tackle the causal factors in given situations. And there is, or should be, a nuclear psychology, translating into modern terms, if you like, the perennial experience of man as a trier, as a self-determining individual. The importance of recognizing this nucleus of the personality lies in the fact that the more aware the individual is, the more the balance swings against all those external factors which limit his freedom. The less aware he is of his own nucleus, the more he becomes the helpless victim of circumstance. This is perhaps the most important lesson of all, both for the doctor himself and for the atmosphere he can create for his patients. And, unless psychology in the medical curriculum can boldly take a stand on this issue, it is merely adding yet another complicated set of phenomena and techniques to befuddle the overburdened mind of the hapless student. But given such a stand all other medical studies would assume a new and more luminous perspective. (See Meredith 1953.)

(4) *Some further reflexions*

In my second point I may seem to have strayed, from the field of method into the field of content, but since content to some extent determines method this is not irrelevant. In my third point I seem to have strayed even further, this time into underlying philosophy. But this, too, influences method. For method in psychology must always take as its chief concern the evoking of attitudes. The underlying philosophy of a course in psychology, whether recognized by teacher or student or neither, has a profound influence on the attitudes of both. If it is cynical about ultimate human values it will render nugatory the most ingenious of teaching techniques. But a manifest respect for the inner core of human individuality will not only arouse a positive response but also provide an important aspect of method. Most psychologically unsophisticated people are rather touchy about their personalities. But a course in psychology demands a certain strong-minded objectivity about one's own peculiarities. If the student can be led to the view that the peripheral regions of his personality, which are subject to determinist laws, are relatively external features, like the colour of his hair or the shape of his nose, he will learn not only to discuss them, and even to laugh at them, but further to view them as instruments through which his inner unassailable core can live and perform its life's work. His outer personality can then become part of his professional equipment, and this not as a hypocritical mask but as the necessary medium through which his individuality comes to terms with the individuality of his patients.

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METHOD AND TECHNIQUE IN THE TEACHING OF MEDICAL PSYCHOLOGY

IV. CONTRIBUTIONS TO THE DISCUSSION*

Prof. Aubrey Lewis: Prof. Millar's stimulating paper showed how much can be accomplished by a resourceful and enterprising teacher. It seemed to me that Prof. Millar was going rather far, however, when he agreed that without authority and dogma there would be chaos. In psychiatry, even more perhaps than in other branches of medicine, dogmatic teaching may give confidence and rules for practice to students who regard themselves as being trained for a craft rather than as receiving a professional education, but in the long run the result would be harmful to the progress of psychiatry. I know, however, that Prof. Millar's own teaching is based on demonstration and discussion, rather than on authority; and I am sure that his students, whether they become general practitioners or psychiatrists, profit more from such instruction as he has been describing this evening than they could from any dogmatic pronouncements. Prof. Meredith's interesting suggestion about the use of child guidance clinics for the teaching of psychiatry is likely to run counter to Prof. Millar's view, with which I agree, that medical students should be taught psychiatry in such a way that they can relate it without difficulty to the rest of their studies. In spite of the great didactic opportunities which child psychiatry affords, its subject-matter and methods are less clearly akin to other branches of medicine as now taught, than are the psychiatric disorders of adults.

Dr K. Cameron: I should like to express my appreciation of the papers we have heard. With particular reference to that of Prof. Millar I am in the most cordial agreement that in teaching a clinical subject we must aim to create in the student an attitude of widened awareness and preparedness to accept the impact of new observations even if these challenge the previously held certainties of the student.

My experience has been that many students, postgraduate as much as undergraduate, experienced considerable anxiety in such a situation and showed an astonishing readiness to accept any didactic formulation or empty verbal framework that appears to restore certainty. The 'negative capability' advocated by Keats was difficult of achievement to many.

Nevertheless, with Prof. Millar, I hold that the teacher must encourage and sustain the student through this anxious phase of introduction to a new subject, rather than shelter him unduly from the cold blast of new knowledge.

I should wish also to emphasize strongly that, as Prof. Millar has said, the focus of teaching must be the patient; the issues raised by his proper investigation, description and responsible treatment provided both the stimulus to further study and the experience that made for a comprehensive and balanced approach. I have been interested in the technical means adopted by Prof. Millar to present clinical material to a wider audience.

I have much enjoyed Dr Balint's paper. With our increased awareness of attitudes and relationships, it was inevitable that teaching methods with small groups must be profoundly affected by the teacher's awareness of inner reactions within the group. Much that in the past had been implicit in a situation was now explicit. It has been encouraging to listen to these aspects being made the basis of the actual teaching. Nevertheless, such widened awareness did perhaps render more difficult the psychiatric teacher's role. Self knowledge and fortitude were required if he

* These comments are based on contributions to the discussion which followed the papers.

was to pursue his task in developing both his subject and the best potentialities of his students.

Dr J. D. Sutherland: I should like to add my appreciation of the papers to that expressed by the other speakers. What struck me most forcibly was that the three papers together put the whole problem before us. Treating the psychological patient adequately is a complex process which demands (*a*) a recognition of the kind of forces at work; and (*b*) appropriate skills; and training in medical psychology is perhaps best thought of as carried out in stages corresponding to the increased experience and emotional maturity of the doctor. I think Prof. Millar referred to these aspects in his separation of psychiatry as a natural science and as an art. I find it misleading to speak of psychiatry as a natural science; the only accurate definition of psychiatry to my mind is that it is what psychiatrists do. In their work, however, psychiatrists draw upon a wide range of scientific knowledge and a variety of scientific disciplines. It seems difficult to do more at the student stage than to communicate some of this general knowledge. But it is important that this should be assimilated, because thereby is laid the foundation for increased awareness and understanding. With a background of knowledge about the neuroses, it is no longer easy, for example, to treat manifestations of anxiety in the intelligent child merely by giving barbitone. And Prof. Meredith's recommendation to use child guidance (a complete misnomer since it is usually a matter of helping parents as well as the child) for providing a good background of knowledge is an admirable one. As Dr Balint pointed out, however, the acquisition of skills is the area in which we have most to learn. After a few years in general practice, the doctor is much more ready emotionally to go on to this stage of his psychological training. I have had the privilege of participating in Dr Balint's work with the general practitioners, and I do seriously believe it to be the beginning of a new phase in medical education. He has devised a means for the general practitioner to acquire skills and yet, by creating the permanent team of the practitioner and the specialist with the weekly case conference, he has avoided many of the dangers commonly referred to in such remarks as 'We mustn't create amateur psychoanalysts' on the one hand, or 'We aren't psychiatrists' on the other. There is no doubt in my mind that this arrangement whereby the specialist in the psychological clinic may work in continuous and progressive collaboration with the general practitioner is one that has enormous possibilities for all concerned—the patient, the doctor and the mental health of the community. I hope, therefore, that this second stage of the doctors' training in medical psychology will soon become a feature of many of our out-patient psychiatric departments.

THE VARYING RESPONSE TO PAIN IN PSYCHIATRIC DISORDERS: A STUDY IN ABNORMAL PSYCHOLOGY*

By K. R. L. HALL and E. STRIDE†

Pain has been studied by psychologists primarily as a psychophysical problem of sensory threshold determination, or in its relatively peripheral aspects in terms of end-organs, type of impulse transmission, and so on. In the present study, attention is centred on response to pain as an indicator of personality characteristics or attitudes which may be quite general and consistent within the individual, although possibly accentuated in the abnormal mental conditions investigated.

At this stage, it is necessary to set out the general context and aim of an investigation of this kind. By using a relatively simple psychophysiological situation as the basis for an experimental study of characteristic response to painful stimuli, it is hoped that information can be derived, at the so-called 'segmental' level of personality study, which may contribute to the founding of an abnormal psychology somewhat along the lines indicated by McDougall (1926) in his *Outline of Abnormal Psychology*. Although the experimental approach to personality disorders may have the apparent defect, from the clinical and organismic points of view, of over-simplification, it is, in fact, sufficiently flexible to adjust itself reciprocally both to changing hypotheses arising within the investigation as such and to clinical observations. In this respect it has advantage over a more rigid factorial investigation.

PREVIOUS WORK

In 1940, Hardy, Wolff & Goodell devised a heat-pain stimulator which had many advantages for the investigation of pain over other thermal and non-thermal methods of stimulation. Since this time, a great number of investigations on perception of and reaction to cutaneous heat-pain has been reported in the American medical and physiological literature. These deal mainly with problems of normal threshold and its variation under changed, externally-induced, conditions, and are reviewed elsewhere by Hall (1953). Only brief mention will, therefore, be made here of the main findings relevant to the present investigation.

(1) *Normal subjects*

Investigations of normal pain threshold have shown considerable discrepancy. On the one hand, Schumacher, Goodell, Hardy & Wolff (1940) maintain that the Pain Perception Threshold (referred to as P.P.T.) is uniform in man. That is to say, the point at which a normal subject first reports pain on a stimulus-scale varying from warmth upwards varies extremely little from individual to individual and from test to test on the same individual. Age, sex, diurnal variation, and other variables are accordingly irrelevant factors, so that a 70-year-old man should, for example, have the same P.P.T. as a 15-year-old girl. But, as these writers are careful to point out, this uniformity holds only when the subject is able to adopt and maintain a consistently objective, detached attitude towards the whole stimulus situation. Furthermore, they instruct their subjects carefully so that they know exactly what the experimenters themselves mean by the P.P.T. This is clearly a very restricted experimental setting, and their findings must be considered as probably representative only of a limited normal sample of trained scientific workers.

It is well known in perceptual experiments

* Department of Experimental and Clinical Psychology, Barrow Hospital, Bristol.

† Based on a paper read at a meeting of the Medical Section of the British Psychological Society on 25 November 1953.

of all kinds how attitude variations affect results, and Chapman & Jones (1944), using the same type of apparatus, procedure and instructions, found a much greater normal variation than Schumacher (Schumacher *et al.* 1940). Some of the factors suggested to account for this lack of uniformity of threshold are age, sex, and also possibly cultural differences shown as between American Negroes and American Whites, but their evidence as to the relative significance of these factors and other possible attitude factors, such as those induced by the form of instruction, is inconclusive. Clausen & King (1950) also reported a relatively wide range of threshold variation in university students, and suggested that intelligence level, particularly ability to introspect and describe verbally the nature of the sensations experienced, might be a relevant factor but offered no evidence on this hypothesis.

(2) *Psychiatric patients*

Investigations on pain threshold in psychiatric patients have shown a considerable measure of agreement as to neurotic response. Chapman, Finesinger, Jones & Cobb (1947) found that neurotics tended to react to pain, by wincing or withdrawing from it, much earlier than normals, although their P.P.T.s were said not to differ from the normal. Confirmation of the greater degree of reactivity to painful stimuli in neurotics has come from Malmo & Shagass (1949), who recorded Psycho-Galvanic Reflex (P.G.R.) and muscle tension changes accompanying the stimuli. Hemphill, Hall & Crookes (1952), however, reported that anxiety neurotics also tended to *perceive* pain earlier than any other clinical group, including a group of mixed neurotic states.

The work on psychotics has been carried out almost exclusively on their *reactions* to painful stimuli. Malmo, Shagass & Smith (1951) showed that chronic schizophrenics made very little directed response to pain, while Hemphill *et al.* (1952) have reported that psychotic depressives showed very great intra-group variation not only in reaction to, but in verbal response to, heat-pain stimulation.

Finally, there is some evidence as to the effect of lobotomy upon pain response, both from clinical observation of intractable pain cases (Freeman & Watts, 1948) and from laboratory investigation of psychiatric patients. Both kinds of study seem to agree that the emotional associations of painful experience are greatly reduced by the operation, although sensitivity, as such, is unaltered. Chapman, Rose & Solomon (1948) reported that, soon after the operation, there was sometimes a marked lowering of reaction threshold to heat-pain in psychotic patients. That is to say, a stimulus intensity which, pre-operatively, provoked no reaction at all might now produce a sharp withdrawal. In following up these cases for two years, Chapman *et al.* (1950) found that the reaction thresholds tended gradually to revert to their pre-operative level. These observations are primarily of interest in demonstrating how critical a factor the remembered emotional context of a so-called 'painful' stimulus is in influencing the level and degree of response made to it.

Two conclusions, particularly relevant to personality study, seem to stand out clearly from this work.

(1) Attitude factors in the experience of and reaction to pain are of considerable importance, and require careful experimental investigation. All the chief factors which have been suggested to account for variation in response to pain—age, sex, intelligence level, neurotic disturbance—can be classed as attitude factors, and investigated as such.

(2) There has been some confusion in the literature regarding the use of the terms perception of and reaction to pain. In the present context, the term 'perception' is used, as by Hebb (1949) and others, to describe responses which cannot, in fact, be isolated from their conceptual background. A pain stimulus, in common with any other form of stimulus, is observed in relation to a variety of background phenomena, such as the objective 'set' provided by the experimental procedure, the form in which the instructions are given, the subjective backgrounds of past experience, and

so on. It is therefore incorrect to say that, for example, psychotic patients cannot 'reliably' report 'perception of pain'. What is really meant by this statement is that accurate psychophysical threshold determinations are impossible for such patients. Using perception in this general psychological sense, we have attempted to investigate the perceptual-conceptual aspects of pain, as well as the reactions to pain, in various psychiatric conditions. We have also tried to evaluate the influence of possible general factors, such as age, sex and intelligence level within the psychiatric population both by direct observation under a standard condition, and by experimental variations of conditions.

THE INVESTIGATIONS

So far, response to pain has been investigated in some 400 patients of both sexes, with an age range from 18 to 70. Clinically, the patients are representative of the general run of psychiatric admissions to Barrow Hospital and to the attached Neurosis Centre, with the exception of the organic psychoses and epilepsy.

Apparatus

The apparatus used (see Fig. 1) was a modified version of that originally devised by Hardy, Wolff & Goodell (1940). The stimulus source was heat, focused through a pair of lenses, from a 1000 W. projector lamp.

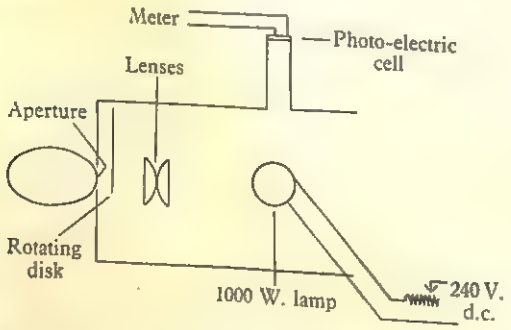

Fig. 1. Diagram of modified Hardy-Wolff heat-pain apparatus

Procedure and instructions

In the first investigations, the patient was told that a light was going to be shone on his forehead, and that he was to report as soon as the heat from the light began to feel at all painful. He was also told that it was *not* an endurance test, but a test of sensitivity. *Precisely the same form of instruction was given for every patient.* This point must be emphasized because it has a very definite bearing upon the results of this and other investigations of a similar nature.

The patient was seated facing the wooden screen, against which he rested his head a few seconds before the heat stimulus occurred. Exposure time was 3 sec. in each minute.

The heat-intensity was increased always from a minimum stimulus which was only just perceptibly warm, upwards by equal steps on a microammeter scale. The patient's description of the stimulus was recorded after each exposure. The first point at which the patient reported any feeling of warmth was recorded, and was called the Warmth Perception Point (W.P.P.). The first point at which the patient described the stimulus as 'beginning to hurt', 'hurting', 'painful', etc., was called the point of Verbal Report of Pain (V.R.P.). This term has been chosen because the use of the expression 'Pain Perception Threshold' is misleading when applied to a non-psychophysical procedure such as was used here. In a clinical-experimental problem of this kind, it is neither possible nor desirable to pretend to attain psychophysical exactness by any of the standard methods, such as use of ascending and descending series, constant stimuli, and similar techniques.

If, at the V.R.P., there was no reaction by wincing or withdrawal from the stimulus, the heat-intensity was again increased until a Pain Reaction Point (P.R.P.) or the maximum heat-intensity available was reached.

RESULTS

The distributions of the three measures used (W.P.P., V.R.P. and P.R.P.) for 256 neurotic and depressive patients of both sexes, are shown

in Fig. 2 below. For much of the work, 80 was the minimum and 340 the maximum heat-intensity obtainable.

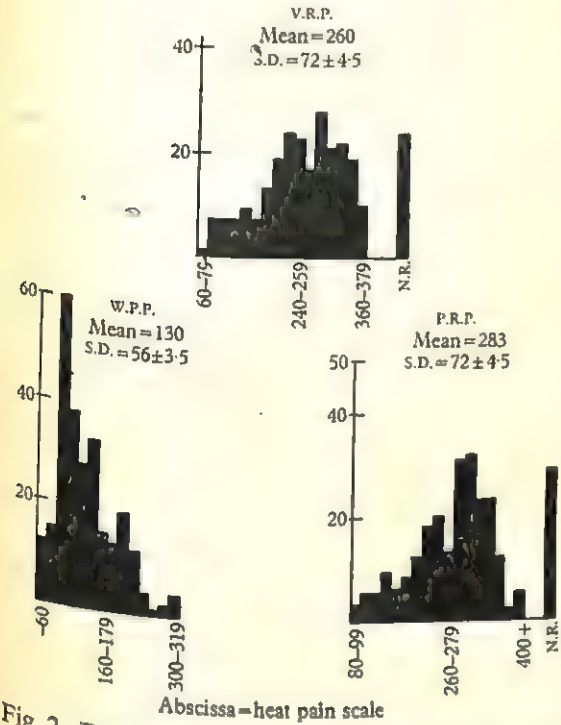

Fig. 2. Distribution of Warmth Perception Point, Verbal Report of Pain and Pain Reaction Point for 256 neurotic and depressive patients.

The distribution of V.R.P.s extends over almost the whole range of stimulus intensity with the mean at 260, S.D. $72 \pm 4{\cdot}5$. This variability ($V = 30{\cdot}29$) is greater even than that reported by Chapman & Jones (1944). The distribution of W.P.P.'s is also wide: mean 130, S.D. $56 \pm 3{\cdot}5$, as is that of P.R.P.s: mean 283, S.D. $72 \pm 4{\cdot}5$. While the majority of the P.R.P.s lie towards the higher end of the scale, there are, as was expected in view of earlier work, a number of patients who react very early. Patients who did not report pain, and those who did not react to pain at the maximum intensity are grouped separately as Non-Responders (N.R.) in the V.R.P. and P.R.P. histograms.

The probable causes of the variation shown in the histograms are analysed below.

Causes of variation

1. *Age*

Within the group of patients classed as neurotic or depressive, age appears to be one of the main causes of variation in V.R.P. The product moment correlation between age and V.R.P. is highly significant ($r = +0{\cdot}31$, $P \ll 0{\cdot}01$) indicating that the older the patient, the more likely he is to have high pain tolerance. Had schizophrenics on the one hand, and organic psychotics on the other, been included, the correlation would have been lower, owing to the fact that some young schizophrenics have a high pain tolerance while it is likely that some elderly dementing patients have a very low tolerance, similar to that observed sometimes after leucotomy.

W.P.P. and age show no significant relationship ($r = +0{\cdot}10$, $P > 0{\cdot}10$), and these two findings taken together suggest that it is not so much with respect to sensory discrimination that the older groups differ from the younger, but in their attitude towards the pain situation.

2. *Sex*

A comparison of the V.R.P.s of the male and female patients reveals a second apparent cause of variation. The mean for the female group is significantly lower than that for the male ($t = 3{\cdot}61$, $P < 0{\cdot}001$). As the average age of the male group was rather higher than that of the female, the two groups were matched so that the mean and standard deviation for age were identical (Mean age 42·3, S.D. 12·35, $N = 65$).

3. *Verbal intelligence level*

The possibility that differences in verbal intelligence level might account for some of the variation, as suggested by Clausen & King (1950), was investigated by correlating the raw scores obtained on the Wechsler vocabulary test with V.R.P. No significant relationship was found (for $N = 172$, $r = +0{\cdot}07$, for which P is $\geqslant 0{\cdot}10$).

4. *Clinical category*

The present findings on a much larger number of patients of both sexes substantially confirm those reported earlier on small groups of female patients (Hemphill *et al.* 1952), while further observations have been made on the effect of E.C.T. on pain threshold in depression, and on pain response in schizophrenics and post-leucotomy patients.

(i) *Depression*

In general, patients classified as depressed tend to have a high pain tolerance, which is reflected both in the V.R.P. and P.R.P. Over 80% of those patients who did not report pain, and of those who did not react to pain, fall into this category. Within the depressive group, there are several points of interest which are worth noting in some detail.

Patients classified as endogenous depressions nearly always have a high pain tolerance, regardless of their age. Exceptions to this trend occur in patients who also show overt evidence of motor disturbance. These tend to have low V.R.P.'s, but if retested when the motor disturbance has disappeared, the tolerance is likely to be very much higher. In this respect, group average results can be misleading and inadequate.

From an analysis of the verbal responses of depressed patients it is clear that there are at least two ways by which these patients arrive at a high pain tolerance measure. In one patient, described clinically as a recurrent endogenous depression, even the perception of warmth occurred beyond the mean point of pain perception for the total group. Verbal report of pain did not occur at all, the intensity of the stimulus at maximum being described as merely warm. The depression here seems to have, at least temporarily, reduced the verbal-perceptual and, perhaps consequently, the motor response system to an inert state in which stimuli are no longer adequately discriminated. In such a case, it has been observed that the transition from just perceptible as warm, to painful enough to cause withdrawal, takes place very suddenly—as though there is a wall of inertia over which the stimulus intensity gradually builds up until overflowing suddenly into motor reaction of a relatively diffuse kind. Otherwise expressed, there is no perceptual forewarning of pain at all. There is some parallel here with the responses of a number of young patients in the early stages of schizophrenia.

Another kind of high pain threshold is sometimes found in several of the patients classified as involutional-type depressions. Here, the verbalization indicates very clearly how different is the underlying background to the response. One patient in this category did not report pain even at the maximum intensity, but, on being asked to describe the nature of the sensation, he said: 'Well, it was like a lighted cigarette-end being held against my forehead'. This type of patient will frequently describe a sensation as 'burning', or 'very hot', without, however, making any admission that it was at all what they meant by pain. There is probably very little, if any, difference in perceptual discrimination in these patients from that of other patients or normals. They do, however, differ markedly in their attitude towards the stimulus, in their evaluation of it as painful or not painful. This is demonstrated also by the fact that these patients report the stimulus as perceptibly warm as early in the scale as most patients of similar age.

Not all those patients classified as involutional or agitated depressions have a high pain tolerance. Some show a low verbal-perceptual response probably due to associated emotional disturbance—for example, two female patients of this group have V.R.P.'s of 150 and 160, which is well below the female average of 240.

It will be apparent from these results that one would certainly not be justified in drawing any general conclusions as to any typical pain response pattern and, although many such cases tend to have a high tolerance, sometimes indifference, to pain stimulation, some show a type of response nearly akin to that of the emotionally disturbed neurotics.

(ii) *The effect of Electro Convulsion Therapy on pain response*

Results on the effect of E.C.T., on a group of male depressives, shown graphically in Fig. 3, seem to demonstrate clearly that patients who show clinical improvement with this treatment have a significant lowering of response to pain ($t=3{\cdot}04$, $P<0{\cdot}02$).

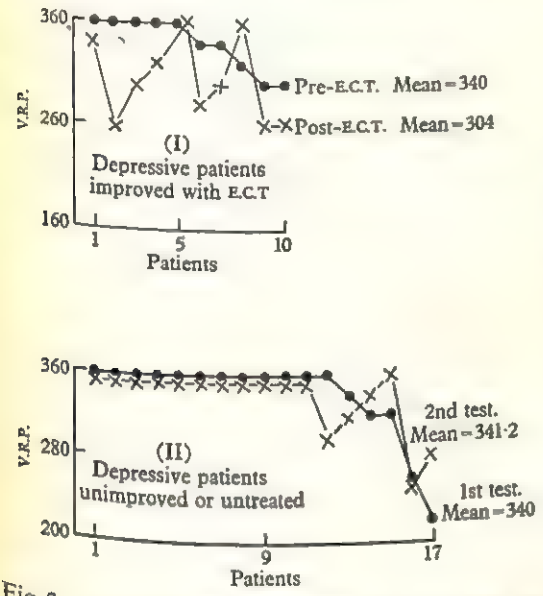

Fig. 3. Graphs showing (i) change in Verbal Report of Pain after 'successful' Electro Convulsion Therapy Course; (ii) relative lack of change in Verbal Report of Pain in unimproved or untreated patients.

From these graphs it will be seen that eight out of ten patients who improved clinically with E.C.T. had lower V.R.P.s. In contrast with this, the data on the seventeen untreated or unimproved patients either tested twice within an hour to an hour and a half on the same day, or retested at an interval varying from 1 day to 43 days, show a remarkable consistency ($t=0{\cdot}163$, $P>0{\cdot}8$). The patient was always retested at the same time of day as on the first test, in case diurnal variation should be a relevant factor, although previous work had not shown this to be important. Only two out of seventeen showed *negative* change, i.e. *lowered* V.R.P.'s on retesting, while three showed *positive* change, i.e. *higher* V.R.P.'s. These patients were comparable clinically to the E.C.T. group, and there is no reason to suppose that this finding is due to sampling differences.

It might be thought that this effect on the pain thresholds is due not so much to the alleviation of depression as to the action on the brain of the electric shock stimulation. It is possible, for example, that E.C.T. might produce a lowering of threshold comparable to that seen in the post-leucotomy patient. In this case the thresholds might return to their pre-shock level as the after-effects wear off, just as the levels of the post-leucotomy patient tend to return to their previous level.

No definite answer on this point can be given at the moment. Although two patients showed reversion to the pre-E.C.T. level, this seems to be associated with their relapse and return to their previous state of depression. Further retest figures are being collected on patients who have had a course of E.C.T. but who have not responded to it.

(iii) *Anxiety*

In regard to the pain response of neurotic patients, the anxiety cases typically have a low average V.R.P. and P.R.P. This tendency is shown in Fig. 4 in which the mean V.R.P.s for anxiety patients and depressive patients, matched for age and sex, are contrasted for each age decade.

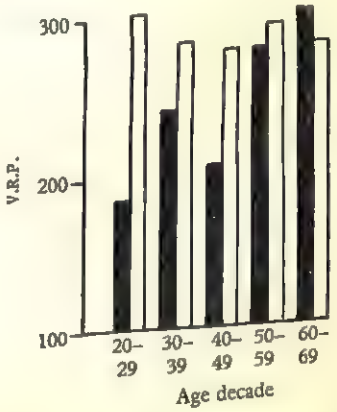

Fig. 4. Mean Verbal Reports of Pain for anxiety patients (shaded) and depressive patients (unshaded), matched for sex and age, shown in relation to age decade. ($N=39$ pairs.)

The statistical significance of these results, treated by analysis of variance, is summarized in Table 1.

Table 1. *Summary of analysis of variance for data of Fig.* 4

Source of variation	Value of F	Probability level
1. Between anxiety and depressive groups	19·0	<0·001
2. 20–29 years: between anxiety and depressive	26·5	<0·01
3. 30–39 years: between anxiety and depressive	1·3	>0·20
4. 40–49 years		
(i) within anxiety: between groups	3·0	>0·05
(ii) within depression: between groups	5·0	<0·05
5. 50+ age groups: between anxiety and depression	—	—

It will be seen from this summary that the overall difference between the V.R.P.s of anxiety patients and those of depressive patients is highly significant, the former reporting pain much earlier. The significance of the apparent trend in Fig. 4 for the increase of pain tolerance in anxiety cases to be related to age, except within the 40–49-year-old group, is borne out clearly by the analysis in this table, the anxiety patients showing highly significantly lower thresholds in the 20–29-year decade only, while, in the 40–49-year decade, the two groups differ chiefly in their within-group variability, the depressives tending to be consistently high whereas the anxieties show a greater range of variation. The tendency for the anxiety cases in this group to respond earlier than those of the 30–39-year decade may be due to the presence of a greater degree of emotional tension occurring in the female patients near the involutional period.

The main point to emphasize in these results is that the anxiety patients obviously tend not only to react earlier by wincing or withdrawal but also tend to perceive and make verbal report of pain earlier. It is also of interest that, although these two classes of patient differ so much in V.R.P. and P.R.P., there is very little difference in their warmth perception points. This would suggest that the observed differences in pain response are due to differences in central attitude or expectation rather than in some peripheral physiological sensitivity or anatomical characteristic. It is possible to demonstrate, for example, in many neurotics that their early response is due to *anticipation* of pain in the following way. If a patient has reacted early, and reported the stimulus as painful say, at 180, one can sometimes continue raising the intensity well beyond the first P.R.P. and V.R.P. up to perhaps 260 before the patient again reports feeling pain. The anticipatory nature of the neurotic response is also clearly demonstrated in a further experimental variation to be described later.

(iv) *Schizophrenia*

So far we have studied only fourteen schizophrenic patients, so that our findings are unlikely to be representative of this wide category. They tend to vary considerably, both intra-individually and within the group, as one might expect, but the overall results for the group show a very high V.R.P. and P.R.P. (mean V.R.P. = 312, mean P.R.P. = 321), particularly in view of the fact that eleven out of the fourteen are under age 30. This, of course, is not at all an unexpected finding in view of the withdrawal and indifference to external stimuli shown by many schizophrenics, but it is necessary to stress this point in connexion with the work by Malmo & Shagass (1949) on the motor response of schizophrenics to a fixed set of so-called 'painful' stimuli. There seems to be no justification whatever for assuming such patients to be 'perceptually normal'. In such patients, there will, as Malmo & Shagass observed, be no adequate directed motor response, but this may be due primarily to the fact that the afferent stimuli are not perceived and conceptually related to pain, and that the 'mental set' towards the task induced by the form of instruction is relatively ineffective.

(v) *Effects of leucotomy*

The relatively unsystematic observations are given here because they seem to illustrate rather well the general point that alteration in the *concept* of pain is the fundamental change that takes place, at least temporarily, as a result of the operation.

In five cases who showed gross abstraction impairment (scoring about half, or less than half, their previous level on seven abstraction tests when tested 10–14 days after operation), four showed very much lower V.R.P.'s, dropping, for example, from

350 (pre-) to 90 (post-),
320 (pre-) to 100 (post-).

In the fifth patient, the V.R.P. was considerably *higher*, having altered from 250 (pre-) to 360 (post-). When retested one to two months later, three of the four low V.R.P./low abstraction patients reported pain at a point close to their pre-operation level and abstraction scores had, at the same time, considerably improved.

5. *Effect of instruction*

The importance of 'mental set' or 'attitude' was investigated by varying the original instructional procedure in two ways. In the first variation (Condition 2) the patient was told only to report the nature of the sensation felt each time. *No instructional set was given that this was to be a pain experiment.* A group of twenty-seven patients, of both sexes, mean age 31·6, age range 20–44, and comparable clinically with the main group, was investigated. The mean V.R.P. of 306 for this alternative procedure was significantly higher than that of 217 for a matched group of patients investigated under the usual condition ($t = 5{\cdot}69$, $P \ll 0{\cdot}001$). Further, there was no significant relationship, under this condition, between V.R.P. and age, nor was there the same tendency for females to respond earlier than males.

The second variation (Condition 3) was an attempt to induce an objective attitude in the patients. The subject was asked to concentrate on each individual stimulus. Each time he reported that he felt the stimulus, he was shown a card on which were printed ten different grades of heat-pain sensation, as shown below, and was asked to choose the grade which seemed to him appropriate for the stimulus.

Warm	Hot
Tingling Not hurting	Tingling Hurting
Stinging Not hurting	Stinging Hurting
Burning Not hurting	Burning Hurting
Pricking or stabbing Not hurting	Pricking or stabbing Hurting

A group of twenty-three patients of both sexes, mean age 32·7, age range 22–44, was tested under this condition. The mean V.R.P. of 317 for this group was significantly higher than that of 255 for a matched group of patients tested under the usual procedure ($t = 5{\cdot}37$, $P \ll 0{\cdot}001$). As under Condition 2, there was no correlation between age and V.R.P. under Condition 3, nor was there a significant sex difference. There was no significant difference between the V.R.P.'s obtained under Condition 2 and those obtained under Condition 3.

These results indicate clearly that both the relatively neutral and the relatively objective and deliberate attitude induced by these two forms of instruction can raise the group average by reducing anticipation of the painful nature of the stimulation.

DISCUSSION

Before trying to interpret these results in terms of their possible general psychological and psychopathological context, the main findings will be summarized.

First, age is an important factor which affects verbal response to pain, so that the older the patient is the more likely he is to have a high V.R.P., at least within the mixed

neurotic and depressive groups we have studied. This, of course, confirms Chapman & Jones' (1944) observations on normals, but it seems clear from our results that the effect of age upon V.R.P. is primarily due to central attitude and not to some deficit in peripheral sensitivity. This is a point which Flanders Dunbar (1944) brought up in discussing Chapman & Jones' findings and our two additional findings, (1) that the correlation of age with W.P.P. is low and non-significant, and (2) that the correlation of age with V.R.P. using the two different instructional procedures is also non-significant, certainly suggest that the central, inhibitory factor is far the more important. As Kubie (1941) says: 'In the aged, the inhibitory process has been likened to a clot in the nervous system through which the excitatory process can barely penetrate.' Nevertheless, this holds good only within the non-organic range, and Stengel & Oldham (1953) have reported low reaction thresholds to various forms of pain stimulation in senile dements. This would certainly fit in with the interpretation of the pain results used here, for cortical atrophy leading to conceptual deterioration and behavioural change would seem to disinhibit the patient's responses rather as leucotomy has been found to do.

Secondly, female patients of comparable age and clinical category tend to report pain earlier than do the male. Again, as the two groups do not differ significantly in their mean W.P.P. or in their mean V.R.P.S under Conditions 2 and 3, it seems probable that the difference is primarily due to attitude, to learned response patterns rather than to anatomo-physiological differences. This supports the suggestion made by Kennard (1952), who was also able to demonstrate that difference in skin thickness did not account for the differential responses of her female and male non-psychiatric patients.

Thirdly, verbal intelligence level, obtained on a vocabulary test, has no relationship to V.R.P., so that Clausen & King's (1950) hypothesis is refuted in so far as our patient-groups are concerned. It is, of course, possible that other measures, such as those of intellectual attitude, the synthetic or analytic approaches, might reveal some common temperamental factor.

Fourthly, there are quite clear inter-group differences in V.R.P. between the anxiety patients, on the one hand, and the depressives designated primarily endogenous and the schizophrenics, on the other. This is true where age and sex are kept constant. It is also apparently true that, as age increases, so do the V.R.P.S of the anxiety patients increase until they differ little, if at all, from those of the depressives. Probably, there is, in fact, a basic depressive, inhibitory component in all or most of the overtly anxious older patients, but this point requires much further investigation, preferably on a small sample of cases very carefully studied both from the clinical and the experimental side. The early responsiveness of anxiety and other neurotic patients is a confirmation of our own previous and of Chapman and others' findings, but the use of different forms of instruction has shown that the low V.R.P.S are mainly due to the *anticipation* of pain induced by the mental set of the instructions.

With regard to the high V.R.P. patients, we have noted several different underlying patterns of response, which will receive further elaboration in a later paper. The high V.R.P. in the schizophrenics is usually associated with very poor mental set and slow response to non-painful visual and auditory stimuli. This relationship is also found in some of the depressive patients, and there seems to be a relatively generalized unresponsiveness common to both groups. In other depressions, however, and in some mixed neurotic conditions, the high V.R.P. is associated with relatively quick and well-maintained responses to neutral stimuli. This seems to indicate (as was illustrated by the verbalization quoted from the male involutional depressive) that the high V.R.P. is due to an inhibitory attitude which may be more or less confined in its effect to unpleasant stimuli, fatigue feelings, and so on. There are, of course, many more relationships

of this kind which it is hoped will be brought out much more clearly in further investigations.

The more general interpretation of these findings can now be attempted in relation to (i) learning mechanisms; (ii) constitutional-temperamental types.

(i) As is well known, workers who have studied experimental neurosis in animals have produced certain behaviour analogues which, as Sargant (1951) and Russell Davis (1952) have convincingly shown, can be very relevant in their application to some aspects of human behaviour disorders.

In the case of the early, anticipatory response to pain, this amounts quite simply to the activation of a conditioned avoidance response brought about mainly by the preparatory signal of the word 'pain' in the instructions. As a recent study by Schiff, Dougan & Welch (1949) has shown, anxious patients condition more easily to a painful stimulus than do normals. In their experiment, the association of the unconditioned stimulus (electric shock) and the warning signal was very quickly made, as was shown by the psychogalvanic response. The development of a generalized early avoidance-response to painful stimuli in the anxious patient may, of course, be a long-established trait in some cases built upon a constitutional weakness of the inhibitory functions of the brain. Mowrer (1952), however, prefers to treat neurosis, with anxiety as its central feature, as a learning phenomenon characterized primarily by a *failure of extinction* of early response tendencies which were once appropriate but are no longer so in the altered environmental circumstances. In other words, these tendencies persist, and, as a result, the individual fails to achieve an integration of the personality. This integration failure can, perhaps, be viewed quite clearly in terms of Lewin's (1935) conceptions of failure to learn to make the necessary spatial or temporal detour to achieve a goal. The anticipatory responses to pain in many neurotic patients may perhaps be interpreted in this manner as due to the persistence of early learned responses which have not been superseded in the normal course of personality development.

With regard to the high V.R.P.S, these can in some cases be explained along the lines suggested by Davis (1952). That is, they may be due to a reduction in responsiveness similar to that produced in the animal laboratory by experimental extinction and consequent habituation. Normal responsiveness is suppressed, through internal inhibition, but, so it would seem from our results, it can to some extent be restored by E.C.T. According to a study by Fleck & Gantt (1951), E.C.T. may lift the inhibition of conditioned responses that had become extinguished through lack of reinforcement.

Especially with regard to our present observations, however, it is important to try to distinguish the *generality* of the inhibitory process. Unresponsiveness is sometimes to be found not only to painful stimuli but to neutral visual or auditory stimuli. This occurs in some depressive states and in some schizophrenics, and seems due to a generalized inertia of the perceptual-response mechanisms so that neither the verbal signals of the instructions nor the actual signals of the experimental situation can be adequately assimilated and acted upon. On the other hand, we have drawn attention to those cases in whom the inhibition seems more or less confined to response to painful and unpleasant stimuli, so that one may think of these people as having a habitual attitude of constraint which prevents them from responding verbally or physically to pain but which does not necessarily reduce their efficiency of response to other kinds of stimulation. Possibly one might see the reinforcement of conditioned responses of this kind to painful stimuli as deriving from the individual's masochistic tendencies to feel pleasure, i.e. reward, in being hurt. In this connexion, an investigation in progress with Dr Hemphill on pain response in attempted suicidal depression may prove of some interest. Where unresponsiveness to pain is built up suddenly through the external inhibition derived from some acute environmental stress,

it is likely, according to Hemphill, that normal responsiveness to pain will return when the attempt at suicide has been made, because the attempt and physical injury may provide a disinhibition to conditioned responses perhaps analogous to that observed after E.C.T.

(ii) There are, no doubt, many more aspects of the learning mechanisms involved which could be discussed, but a very brief reference will now be made to the possible relation of these findings to constitutional factors.

Pavlov (1941) as a result of his observations of the different reactions to stress shown by his dogs, said that '...whether or not the animal breaks down, and in what form, depends upon the type of nervous system', this being genetically determined. His typology is quite fully described by Frolov (1937), and appears to consist of a fourfold classification more or less identical with that of Hippocrates and based upon relative strengths of inhibition and excitation. In applying his classifications to mental disorders in human beings, he introduced his idea of two mutually related signal systems, and suggested that there must be some innate differential relationships within the brain between the second, or symbolic-conceptual, signal system, and the first, or sensory signal system. This innate relationship is postulated to account for the varying types of response to similar environmental stress shown, for example, in the hysterical or the obsessional or anxiety reactions of mental patients.

The implication of this kind of assumption seems to be that the concepts of pain, and therefore the verbal and motor responses to painful stimuli, will be differently learned according to the innate characteristics of the individual nervous system rather than as a result primarily of different early training. His typology would seem, anyway, to indicate certain hypotheses for investigation rather than to stand or fall by its assumption of the innateness of the differences, and the same must apply to the other personality typologies, such as those of Kretschmer (1925), Eysenck (1952) and Sheldon (1942). So far as is known, there is, at present, no adequate evidence of significant relationships between pain response and constitutional-temperamental types—two studies on American university students by Janoff, Beck & Child (1950) and Child (1950) being quite inconclusive.

CONCLUSIONS

The investigations described have raised many more problems than they have solved. Not enough is known about *normal* variation using this kind of procedure. We only know about certain characteristics and factors relevant in the pain responses of some groups of psychiatric patients. Out of this fairly wide survey, it is particularly important to follow up certain detailed hypotheses on small samples of patients, and to work out the kind of interrelationships suggested, not only as between clinical appreciations and treatment effects, but as between other psychological findings, such as those of conceptual level, mental set, and so on. In this way, the small-scale experiment can perhaps contribute quite a lot to the understanding of the mechanisms involved in the various forms of personality disturbance. Also, we should be able to study and evaluate intra-individual changes with relatively flexible experimental techniques, without losing sight of the necessity to integrate our findings in relation to general personality theory.

SUMMARY

1. An experimental investigation of the response to pain has been carried out on some 400 psychiatric patients of both sexes, age range 18–70, using, as stimulation source, a modified version of the Hardy-Wolff apparatus.

2. For the main experiment, the patient was instructed to report as soon as the heat on the forehead became painful, and three measures of response were recorded:

(i) Warmth Perception Point (W.P.P.)
(ii) Verbal Report of Pain (V.R.P.)
(iii) Pain Reaction Point (P.R.P.)

3. The main findings are:

(i) Within the neurotic and depressive patient groups, V.R.P. and P.R.P. become significantly higher with age and are higher in male patients than in female, whereas W.P.P. is unaffected either by age or sex differences.

(ii) Depressive and schizophrenic patients tend to report pain at a uniformly high level, irrespective of age, whereas anxiety neurotics tend both to perceive and to react early to pain, although this tendency is reduced with age.

(iii) Depressive patients who showed clinical improvement after E.C.T. also showed a highly significant lowering of pain threshold in contrast with a comparable group who were untreated or unimproved.

(iv) By varying the form of instruction given prior to the experiment, it was possible to raise the response to pain considerably higher than the general average for the original condition, indicating that low tolerance for pain is often, in these patients, due to anticipation of pain rather than actual experience of it.

4. These results are interpreted as demonstrating the probability that the major causes of variation in pain tolerance, within this psychiatric population, can all be attributed to differences in central attitude or pain-conceptualization and not to differences in peripheral sensitivity. General discussion of these differences is made in terms of (i) learning mechanisms, (ii) constitutional-temperamental types.

ACKNOWLEDGEMENTS

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DEFENCES AGAINST AGGRESSION IN THE PLAY OF YOUNG CHILDREN

By RONALD C. ALBINO*

There is little doubt that the most stimulating observations and theories of play have been contributed by the psychoanalytic workers. However, such theories have all been based upon investigations in which neither the data nor the method of reaching conclusions are fully reported. Rigorous inference is rarely apparent, and, if it were, would possibly be invalid because of the incomplete records upon which it would be based.

The criticism does not apply to the many specific studies which have been based upon the clinically derived theories of psychoanalysis, but designed in accordance with the usual principles of experimental method. Many of these more rigorous experiments depart from the unrestricted play situation of the psychoanalysts, substituting in its place a more or less restricted situation compelling the child to play within certain limits (Levy, 1933, 1936, 1937, 1943; Fite, 1940; Bender, Keiser & Schilder, 1936; Despert, 1937).

These workers have discovered much concerning the content and determinants of fragments of play of a specific kind. However, in limiting the play situation as they do, they have, in most cases, prevented the complex dynamic phenomena peculiar to unrestricted play from appearing. Erickson (1937, 1940, 1941) in a careful analysis of the manner in which the psychoanalyst approaches play points out that a game is a patterned activity in that the various elements may be considered as endogenously determined by psychoanalytic dynamisms. Though he does not specifically say so, his adoption of the psychoanalytic viewpoint implies that any exogenous determinants in the shape of restrictions would prevent the appearance of these patterns. Thus, there are two types of play studies: those of the psychoanalysts which suffer from the defects already mentioned and, in addition, depend largely upon the exercise of intuition rather than inference; and those of the experimentalists which are more rigorous than the former but which only deal in a fragmentary way with material which the psychoanalyst regards as a whole and as patterned in a complex manner. Between the two are a few investigations (Levy, 1936, 1937; Pintler, 1945) in which, by allowing play in a situation only partly restricted and by a minimum use of intuitive interpretation, the patterns postulated to exist by the psychoanalyst have been observed.

It is the aim of this paper to demonstrate, (i), that in unrestricted play endogenously determined, patterned activities can be objectively demonstrated; and (ii), that the patterns observed may be explained as being determined by psychoanalytic dynamisms.

The sample

The children were selected from two nursery schools of approximately the same socio-economic status and in the same town. The population of both schools consisted of children of parents in the income group £400–£800 a year. The fathers were all either skilled artisans or clerical workers. The age and sex distribution of the sample is shown in Table 1. The sample is not a random one of the school population, as the children who were selected were only those who submitted of their own will to examination. Neither is it a random sample of the population of all children of pre-school age, for it is probable that mothers who send their children to

* Department of Psychology, University of Natal, Pietermaritzburg, South Africa.

nursery school do so for special reasons. This view is supported by the fact that 70% of the children in the sample exhibited symptoms of behaviour upset, such as nail biting, frequent temper tantrums, marked feeding difficulty, night terrors or bed-wetting. The incidence of these disorders may be as high in the general population as it is in our sample, but until it is established that it is the case the representativeness of the sample must be questioned.

Table 1. *Distribution of children in sample according to age and sex*

Age (months)	Male	Female	Total
30–34	1	—	1
35–39	5	1	6
40–44	4	4	8
45–49	2	—	2
50–54	5	—	5
55–59	4	—	4
60–64	6	7	13
65–69	3	1	4
Total	30	13	43

Method

To achieve the aim of objective confirmation of conclusions reached by intuitive clinical studies the following conditions must be satisfied:

(1) The data must be collected in a way which allows all the phenomena regarded as significant by a clinician to appear and to be recorded. (It is not unusual for investigations on the validity of clinically obtained concepts to be negative merely because the special clinical conditions for the appearance of the phenomena are absent.)

(2) The manner of treating the data must permit of investigation of the type of conclusion reached by intuitive methods.

(3) Both the data and the manner in which conclusions are reached should be public.

The methods finally chosen do satisfy these criteria.

(*a*) *The play situation*

The world game of Lowenfeld (1939) was chosen as the most appropriate technique for this study as it occupies an intermediate position between the fully open field of the psychoanalyst and the very restricted situations of, for example, Levy.

The tray was circular instead of rectangular, and the number of toys was fewer than those used by Lowenfeld herself. This restriction, however, is less than it seems for the child was not confined to the tray. Once he had been introduced to the tray he could play anywhere. Some children did leave the tray, though most played on it or very near to it. The choice of this particular technique proved very fortunate, for the tray formed a commencing focus for the play, and many of the patterns to be discovered later in the study could be described in topographical terms with the tray forming a centre to the pattern. Without such a focus many of the observed patterns would have been difficult to isolate.

(*b*) *The interview and its recording*

The play sessions were conducted in a room in the nursery school. The tray was placed on a low stand in the centre of the room with the microphone of a wire recorder placed directly above it. The recording machine was placed on a table in one corner of the room. At the same table sat the person who manipulated the recording machine and who also wrote a full description of the game.

(*c*) *The conduct of the sessions*

The interviewer began the interviews standing close to the tray facing the recorder, the child usually taking a position with his back to the recording machine.

The children were interviewed on week-day mornings over a period of five weeks, during which time both the recorder and the interviewer became familiar with the children, though at no time did they play with any child outside the play room.

The subjects were selected by the interviewer walking about the playground of the school and asking the children if they wished to come and play in the room. They were told that there were a lot of toys with which they

could play. After the first child had been interviewed there was no difficulty in getting subjects; on most days there were several children waiting to be let in, and several who had been interviewed asking to come again. However, later in the research it was difficult to get subjects, the unafraid having been the first to present themselves, only the timid were left. These latter were induced to enter by allowing another child, who had already been interviewed, to come with them, the second child being asked to leave the room when the timid child appeared absorbed in his game. A few children could not be investigated as they could not be induced to enter the room by any means.

The interviewer and recorder were the same for all children. Both were kept ignorant of the final object of the research in order to eliminate the possible distortion of the records by unconscious bias. Both were well acquainted with the procedures of free-play interviews, and the interviewer had conducted therapeutic play sessions himself. They had a fair background of psychoanalytic theory, but neither had been psychoanalysed.

None of the children appeared to notice either the microphone, or the person who was recording, nor did they appear at all inhibited by the presence of a second person in the room. (This indifference of the child to a second person was most striking and unexpected and it has since been observed in ordinary play-therapy situations.)

The interviewer conducted the session according to the usual rules of psychoanalytic interviewing. He was non-directive in that he never suggested to the child that he should play in a particular way after the initial instruction to build a world. He preserved an uninvolved, but friendly manner and his personality was such that a permissive atmosphere was always present.

The interviewer made occasional notes but did not indulge in note-taking to an extent that destroyed his contact with the child.

The interviews lasted an hour, unless a child asked to leave before that period ended.

(*d*) *The final protocol*

The records of the child's speech and his non-verbal behaviour were combined into a single typewritten protocol (Table 3 B). Thus, the final protocol contained a full description of all the child did and said during the session.

It is inevitable that much did not get into the records—slight nuances of behaviour, the behaviour of the interviewer and the 'atmosphere' of particular moments of the session were obviously missed. However, the data are as full as the method allows, and are an accurate record.

(*e*) *The interpretation of the final protocol*

Before the protocols could be dealt with they had to be reduced in length in such a manner that nothing was lost and the dynamic patterns of play were retained.

Several methods were tried but discarded, including rewriting the record in a short form and attempting to describe dynamic systems directly from the protocol. These and some other methods were discarded because they were either too crude or subjective. Finally the following method was adopted:

(i) *The isolation of aggressive episodes.* Each protocol was carefully read several times, until the investigator was clear which parts of the game were overtly aggressive. These episodes were underlined and numbered serially in Roman numerals.

(ii) *The demarcation of the onset and termination of aggressive episodes.* The points at which each episode began and ended were marked. These points usually differed from the original marking, the onset coming somewhat before the underlined episode and the termination somewhat beyond it.

The determination of these points was somewhat subjective compared with the objective and unequivocal classification of an aggressive episode. However, inspection of the final marking of the records showed that a rule had in fact been followed: so long as the child continued playing with the same intensity, and without a pause, in the same part of the

tray as he was during the aggressive episode, the play was regarded as being connected with that episode and as its termination. However, as soon as the game ended and different toys or a different place on the tray were used, the game was regarded as ended. One additional criterion was used: any behaviour of the child which could not be regarded as a new game (pauses, leaving the room, inconsequential conversation, etc.) was included in the terminal phase of the episode. Such behaviour seems to be more closely related to the preceding aggressive episode than to the following episode because it usually appears suddenly in the midst of an aggressive game and bears neither a relationship of content nor form to the following episode. (This type of play is broadly the same as that called tangential by Pintler (Pintler, 1945; Pintler, Phillips & Sears, 1946).)

Similar criteria were established for the onset. Most children did not begin an aggressive incident abruptly, but would start to play in a non-aggressive manner with the toys later to be used aggressively. Onset was defined as the point at which this play with the toys later to be used aggressively began. The demarcation of onset was, however, more arbitrary than that of the termination.

Table 2. *The criteria for division of an aggressive episode into three phases*

Phase	Criteria
Onset	Play with the toys later to be used in the active phase
Active	Play demonstrating overt aggression
Termination	Overt aggression absent but play continued at the same intensity with the toys of the aggressive game, a pause, abrupt termination or abrupt change of game

(iii) *The final classification of the episode.* Each episode was then abstracted from the record, and the central part in which overt aggression appeared was called the active phase. The sections before and after this were respectively classified as onset and termination. The criteria for classification are summarized in Table 2.

The period between the termination of one aggressive episode and the beginning of another was regarded as transitional play. If two or more episodes were not separated by transitional play they were given the same number, but were distinguished by a letter.

(iv) *The analysis of the data.* Each of the twenty-three aggressive protocols was finally reduced to a table in which each row represented an aggressive incident and each column a phase of the incident. The material in the table was thus an abbreviated version of the original protocol. It was from these tables that the results were taken. Table 3 is a part of one such table for a particular child, and the relevant section of the original record is also quoted in order that the reader may clearly understand the process.

The example given is one chosen more to illustrate the defects of the method than its virtues. In most cases the classification was much more obvious and precise. However, it is most important to make some estimate of the precision of a study of this kind and this can only be done by emphasizing its defects rather than its virtues.

It is necessary to distinguish carefully between those elements in the method used which are objective and those which depend upon subjective impression. The first underlining of the aggressive episodes was the most objective part of the technique. Any person, once aggression has been defined, could carry out the classification and the results would be the same as those of the author (a test on three records (thirty episodes) gave identical results for two classifiers). The definition of aggression was a simple one; any play in which physical or verbal attacks were made or postulated, or in which physical injury to objects or persons was demonstrated or postulated was regarded as aggressive.

Subjectivity did enter into the classification of onset and termination as is evident in Table 3. In some cases onset imperceptibly faded into the transition phase of a previous

Table 3

A. Sample of a final tabulation of a record

V. Long pause. You can't play with this soldier	Throws soldier down stairs (repeats twice)	Takes out cannons but ceases aggression	Continues taking out toys, cannons, robots
VI. Takes out soldier and then cot	(*a*) Accuses Recorder of breaking cot	Denies Recorder broke cot	
	(*b*) Asserts twice that gho-gho broke cot and another toy	Refers to Mummy sleeping in cot. Talks of sleeping on brother's bed. Obsessive making of animals' stand	Picks up toys

B. Section from an original protocol showing first marking of aggressive episodes

Long pause.

You can't play with this soldier. Putting this away now.
Throw him down the stairs. They throw him down the stairs. Naughty one.
Gonna play with this (cannon) now. Got two of these (cannons) now.
Got a lot of these now.

Takes cannons out. Takes out robot.

What's this?

What do you think?

It's a soldier. Who broke this cot?

I don't know.

It was that man.

Points to Recorder.

No, not that man. It was a gho-gho that broke it.
Broke this too.
Who broke this cot? It was a gho-gho. We had a cot like this last night. Mummy sleeps in a cot.

Where do you sleep?

On Jimmy's bed.

This can stand and this can stand. These two can stand. (This continued for some time.) All these are standing here and those horses are standing there. Two of these (cannons). Lot of these, lot of these, lot of these. Me can pick up these. All over the dogs are barking....

incident and, likewise, termination is often difficult to distinguish from a following transition phase. However, the effect of inaccurate determination of the terminal and onset phases upon the final results is not great. The phase of onset is not considered in the results at all, and the termination is considered as a whole. The precise end of the latter does not influence the findings except to restrict them if put too near the aggressive episode. Put too far from the aggressive episode, which is the most likely event, it would have little effect, as it is the play immediately following the aggressive episode that has contributed most to our findings.

Results

(1) *The distribution of aggressive games in the sample*

Table 4 shows the distribution of aggressive games in the sample. Aggressive games were those in which at least one aggressive episode

occurred, non-aggressive were those in which there was no aggression.

It will be seen that only twenty-three children in the sample played aggressive games. The present study is restricted to this group.

Table 4. *Distribution of aggressive and non-aggressive games in the sample according to sex*

	Male	Female	Total
Non-aggressive	12	8	20
Aggressive	18	5	23
Total	30	13	43

$\chi^2 = 0{\cdot}0218$. $P = 0{\cdot}9 - 0{\cdot}5$.

Previous studies have shown that older children tend to be less aggressive than younger (Bridges, 1931; Bender *et al.*, 1936) and that girls tend to be less aggressive than boys (Jersild & Markey, 1935; Dawe, 1934). The sex difference in our sample can be attributed to accidents of sampling, for they would occur by chance alone in nine cases out of ten (Table 4), whilst the age difference (Table 5) can be regarded as significant as it would only occur by chance alone in five cases out of a hundred.

Table 5. *Difference between mean ages of aggressive and non-aggressive groups*

	Mean age (months)	Standard error	Frequency
Aggressive group	53·3	12·81	23
Non-aggressive group	51·0	7·11	20

Difference between means = 2·3
Standard error of mean difference = 14·65
$t = 0{\cdot}1706$
$P = 0{\cdot}05$

(2) *Patterns of termination of aggressive play*

Many forms of termination were observed, but all could be classified in one of the categories listed below. The definition of these categories is given with an example to illustrate each.

(*a*) *Retreat.* The child merely separates the aggressive toys from the others, or separates himself from them without leaving the room.

(i) *Confined to tray*

E.g. He's gonna shoot some cows too.
(More talk of shooting cows.)
I'm gonna to put this one (soldier) on a lorry and go for a ride.
(Scene with two cows fighting.)
The other cow scratched him.
That man must be over there (moves man away from fighting cows).

(ii) *Leaves the room*

The child suddenly ceases the game, leaves the room to return later.

E.g. It's broking all the things now. Go away from me.
(Goes outside.)
(Returns.)

(iii) *Going to sleep*

The child asserts that either the agent or object of aggression has gone to sleep.

E.g. They shoot all the cows what bite the little cows. The cows don't let the little cows go and have water. There's a big cow what bites his little cow.
All of them going in the house to sleep—the cows. The cows can go in the houses.

(*b*) *Inhibition.* Those instances in which a child refuses to play, or suddenly turns, with or without a pause, to another game unrelated in content to the previous aggressive episode. The subclasses are self explanatory.

(i) *Silence and pause in play*

E.g. Shoot the soldiers. Shoot the cows and the mans.
(Pause.)

(ii) *Verbal refusal to play*

(iii) *Change to another game*

E.g. Little boy going to shoot the little boy.
(Changes the subject on being asked why.)
This looks like a doctor....

It will be seen that in this example the change was determined by the experimenter's question. In most defences of this kind this was observed.

(*c*) *Enclosure.* Those cases in which the child encloses the aggressive agents or objects, or in which he builds a barrier between them.

(*d*) *Formation of repetitive symptoms.* These cases in which the child closes an aggressive

act by continually repeating a non-aggressive act.

E.g. Child previously played very aggressively with toys and had buried both objects and agents of aggression after aggressive episodes. He then began to clear the tray of toys and to pat the sand which he continued over and over again.

Buries sheep in ditch—sifts sand over graves—smacks it down. Hammers sand with a gun and digs out sheep again. Rough and violent movements in the sand. Puts sheep in toy box. Collects other toys and throws them violently in boxes. Smooths over sand. Continues to pat sand in tray.

Earlier in the same game a similar episode occurred:

E.g. He buries the gorilla.
Unearths the gorilla, shoots it, buries it again. Covers it neatly and smacks the sand continually and mutters 'fast as you can'.

(*e*) *Reparation.* The child makes reparation for an aggressive act by turning aggression on to himself.

E.g. One's shooting you.
And now?
Now he's not. He's coming to shoot me.

(*f*) *Enlisting the aid of helpful figure.* The child terminates an aggressive episode by mentioning a helpful person, such as a doctor, who, he implies, can undo the effects of aggression.

(*g*) *Denial.* The aggressive qualities of the aggressive game are denied.

E.g. All over the dogs are barking.
Why?
Hey?
Why?
Hey?
Why?
Hey?
Yes?
Pram must drive slow, slow, slow, drive slow, drive slow. Can't bark, can't bark, can't bark (repeats five times in all).

This defence, which will be referred to later, is an example of a composite one showing several defensive mechanisms combined.

(*h*) *Undoing.* The child performs an act which reverses the effect of a previous aggressive act.

E.g. Now the cow's dead. Killing everyone dead. (All figures and animals on tray are killed.) Now here they are standing up. Here's one and there's one, there's one and there's one.

(3) *The distribution of various forms of termination*

Four of the twenty-three aggressive games were continuously aggressive and therefore lacked terminal phases. The frequencies of the various forms of termination observed in the remaining nineteen games are displayed in Table 6. It can be seen that the most frequent types of defence are retreat (31%) and inhibition (25%), with enclosure coming third (16%).

Table 6. *Frequency of occurrence of each type of termination*

	% frequency	Total
(*a*) Retreat		
(i) Confined to tray	18	—
(ii) Leaving room	11	—
(iii) Going to sleep (suggested; the child does not actually sleep)	2	31
(*b*) Inhibition		
(i) Silence, and pause in play	12	—
(ii) Verbal refusal to play	2	—
(iii) Sudden change to another game	11	25
(*c*) Enclosure	16	16
(*d*) Formation of repetitive symptoms	11	11
(*e*) Reparation	1	1
(*f*) Enlisting aid of helpful figure	4	4
(*g*) Denial	3	3
(*h*) Undoing	9	9

(Enclosure has previously been observed to be a feature of the play of 4- to 5-year-old children (Michael & Buhler, 1945), and

retreat and inhibition are frequently mentioned by child psychotherapists as being common during therapeutic play sessions.)

(4) *Complex terminations to single aggressive episodes*

The termination of a single episode may be followed immediately by a further aggressive episode, and in some cases a long series of such alternations of aggression and termination may occur. In some cases the terminal phase may have a complex structure and be composed of a group of various kinds of termination. It is thus possible to isolate two patterns of aggressive play; those in which there is a continuous alternation of aggression and termination and those in which a complex terminal phase follows the aggressive episode.

The complex terminal phases which could be easily isolated consisted of a series of terminations, each of which appeared to develop out of the earlier ones. A characteristic of such terminations is that there appears to be a gradual disappearance of aggression and its replacement by a termination which is free of aggression. The following abstract from a record is a good example of such a complex termination in which all the features observed in other examples are evident.

No.	Onset	Active phase	Termination	Transition
IV	It's Claud's soldier	(*a*) Long shooting episode (*b*) Molly broke her doll	Molly's got a doll Man with bent legs runs into house. Cannot get in. Puts soldier in another house and says he is shooting. Puts all figures on tray into houses. Soldier still shooting in his house. Soldier goes to sleep. Then says soldier's house is his own house with a bed like mother's	None

In this example three defences occur; enclosure, going to sleep and then denial in which the house with the aggressive soldier becomes a house like the subject's own with a bed like mother's which is, presumably, safe.

(5) *Complex patterns involving a whole game or several episodes*

Besides the patterns already described, which were limited to single episodes, or sequences of episodes separated by transitional play, there were patterns which extended over several distinct episodes or even over whole games.

(*a*) *Repetitive patterns.* It is impossible to include a full protocol to demonstrate the development of repetitive patterns of play. Those children showing this phenomenon had, however, the following characteristics in their play:

(i) Early in the game repetitive termination to single episodes occur and these are sometimes repetitions of aggressive acts; e.g. this man must shoot this lady, repeated five times.

(ii) Precursors often occur in the form of terminations which are later to be incorporated in the repetitive act, e.g. a child who ended his game with a continual patting of the sand had previously in the game buried aggressive figures and patted the sand over them.

(iii) The repetitive act appears slowly. At first a mild repetition arises but is not repeated frequently. Later in the game the repetitive act occurs with greater frequency, and the repetitions in a single act are more numerous than earlier in the game.

(iv) The repetitive act may be always the same once it is established, but more frequently several such acts follow one another.

(v) When well established the compulsive behaviour lasts for a longer period than the

aggressive episodes which it terminates, and it may continue to the end of the game.

In some cases the function of the compulsive act is clear from the content of the game. It may have the character of an undoing, in which the aggressive act is reversed. For example, one child after knocking down figures stood them up with the repeated remark, 'This must stand, this must stand....' He would then knock them down again and repeat the standing up play. In other instances aggression is denied as in the case of the child who repeated, 'Can't bark...' many times after asserting all the dogs were barking. Cases were also observed in which the aggressive act was continued but with the aggressive elements of the content removed. For example, a child had run over figures with cars and then said, 'Pram must drive slow, slow, slow....'

An inspection of the records showed that the most marked examples of these repetitive patterns seemed to occur in games which were very aggressive in their earlier stages. However, examples of compulsive acts as defences for single episodes occurred frequently. Later in such games the repetitive elements crowded out the aggressive elements, but the games remained very rich in content. There was none of the impoverishment and rigidity of play which is associated with the products of obsessive compulsive neurotics, and which Michael & Buhler (1945) observed to be associated with the obsessional character. Probably the observations in this study concern only the beginning of such a character type, which, if so, would explain the lack of rigidity in the games. The findings do, however, support the view that repetitive symptoms are associated with repressed aggressiveness.

(*b*) *Epinemesis.* Nine worlds demonstrated a peculiar process which is best called epinemesis (ἐπινέμήσις: spreading, as of a fire).

When observed the process has all the features of a rapidly spreading fire. The child starts to play with a few toys in a small area of the tray. As the game proceeds the area of the game increases, more toys are used, the game becomes more active and aggressive. Eventually, in marked cases, the child uses the whole room to play in, and all the toys are being used and there is no longer any attempt to construct a world approximating to reality. Instead, the toys are thrown about, stamped on and no regard is paid for the investigator or for property. The child ends his game in a bout of enthusiastic destructiveness and has to be asked several times to stop. Such marked cases are rare (three in our sample) but lesser examples occur in the middle of otherwise ordinary games. Inspection of the records showed no special cause in the investigator's behaviour for this phenomenon and it must therefore be regarded as endogenous.

(*c*) *Continuously aggressive worlds.* Four worlds demonstrated continuous aggression. These were distinguished from the epinemetic worlds by the constant level of the aggression, which showed no tendency to spread. These children, unlike those showing epinemesis, cease playing very easily.

(*d*) *More complex patterns.* In many games all the described patterns occur together. It is only in fully epinemetic and continuously aggressive worlds that a single pattern is found. In all the other worlds epinemesis, repetitive acts and all types of local defences may be associated. Doubtless fuller study would elicit preferred combinations in particular children.

Discussion

It is clear that various patterns of aggressive play can be isolated from the records of play sessions. It remains to consider the meaning of these patterns. An inspection of Table 6 shows that the various terminations observed may be regarded as means of defence against aggression. In making this assumption there is no need to go beyond the behavioural data and to consider what the child consciously is attempting to do; it is sufficient merely to state that having showed aggressive behaviour the child then performs an act which negates or avoids that behaviour.

This assumption is supported if we further

consider the relationship of terminal phases to aggressive episodes. The terminal phases may have the following characteristics:

(i) A definite movement away from the field of play used in the active phase (Table 6*a*, i and ii).

(ii) An alternation of aggressive and non-aggressive play (Table 6*d*).

(iii) A game directly opposed in content to the aggressive play (Table 6*h*).

(iv) A game in which the content is reparative of a previous aggressive game (Table 6*e*).

(v) The child merely ceases to play. A study of the reduced records shows that such behaviour may have the following characteristics:

(*a*) It occurs frequently in one game and always after an aggressive episode.

(*b*) That, with the exception of 'going to sleep', it is accompanied by exhibition of emotion, usually of an anxious kind.

(*c*) That in the case of 'going to sleep' the child continues to play spontaneously after termination is ended, and has therefore probably not ceased playing through boredom.

Characteristics (i)–(iv) all seem to imply a direct connexion between the aggressive episode and its termination. This is especially so in the case of characteristics (iii) and (iv). It is less so for (i) and (ii), but the facts that retreat is often followed by aggression and then by retreat again in an alternating pattern, and that an alternating pattern of aggression and termination may persist without interruption make it difficult to reject the conclusion that aggression and its termination are causally related. Characteristic (v, *a* and *b*) gives additional support to the hypothesis and, also, (*b*) is evidence of anxiety following an aggressive episode. In the case of (v, *b*) there is a clear indication that it is not simple boredom which causes a cessation of play. Finally, in the case of those terminations (*f*), (*g*) and (*h*) in Table 6 there is a clear connexion between the content of the aggressive episode and its termination.

There is other evidence of the truth of the hypothesis that the aggressive episode and its termination are causally related. In the epinemetic worlds it is seen that as the terminal phases of play disappear the intensity and extent of aggression increases as if there were an inverse relation between the two. This could be merely due to the aggressive play crowding out other play, the latter being in no way related to the former. But it is unlikely that this is so, for when the reverse process occurs, in which aggressive play decreases as the terminal phases are elaborated, we find that the content of the terminal phase is often closely related to the aggressive phase; it may be either reparative or a reaction formation or it may have obviously defensive features such as the enclosure of aggressive objects or their removal. Lastly, all the terminal phases do have the form of classic defensive processes postulated by the psychoanalysts.

None of this evidence conclusively proves the terminal phases to be causally related to the active phase and to be a defence against the former. But, taken together, it is cumulative evidence that the hypothesis is probable.

If this hypothesis is accepted, then the meaning of the aggressive components of the games becomes clear. We can assume that the games of children of the age of those in our sample may represent an attempt to control aggression, and that, in doing so, they use the classical psychoanalytic defences. It is also clear that this process is a continuous one which extends over a whole game and in which more or less success is achieved. In the case of the epinemetic worlds it is obvious that defensive activity decreases as the game progresses, in the case of those worlds in which repetitive patterns gradually develop the strength of the defences increases. Within a game similar processes are observed. A child may, for example, show a developing series of defences following an aggressive episode, each being more successful than the last in inhibiting aggression, or he may show a developing aggression which suddenly ceases in a retreat. Between the extremes of successful defence and decreasing defence occur alternating patterns in which the two tendencies are more or less equal.

Finally, it must be emphasized that the

findings of this study are most tentative. The main point that the investigation makes is that it is possible to deal with complex psychological data without resorting to intuitive or anecdotal techniques.

Summary

1. The behaviour of a group of pre-school children in a partly restricted play situation was fully recorded, each child being interviewed individually.

2. The aggressive episodes in the records were analysed to determine the form of their termination.

3. It was found that the observed terminations to the aggressive episodes could be regarded as defences against aggression.

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MAZE TEST QUALITATIVE ASPECTS

By S. D. PORTEUS*

Supplementary scoring of the Porteus Maze test based on poor quality of performance in the actual drawing, etc., has now been in use for ten years, the first publication of the subject having appeared in 1942 (Porteus, 1942). A group of 100 delinquent boys had a weighted error score of 49 points, the same number of girls 53 points. Non-delinquent boys, again numbering 100, averaged only 22 points, girls 25 points. The critical ratios of these differences were over 9, indicating complete statistical reliability. Apparently there was a relation with degree of criminality since 100 prison inmates averaged 57, in marked contrast to the performance of 100 bus-drivers, who scored 18 points.

Negative correlations between Maze test ages and Q-scores showed that these were two independent measures derived from the same test. A subject could gain a perfect mental age score by avoiding every blind alley in the Maze, yet because of crossing lines, cutting corners at other than 'choice points', lifting his pencil contrary to instructions, and drawing irregular or wavy lines, he might earn a very high penalty total.

So, by regarding the test as a work sample, the examiner could detect habits which involve careless inattention to details, disregard of rules and regulations, lack of standards of performance. If we accept Allport's description of personality as 'characteristic style of response', then we could expect these faults of temperament to extend into the field of social adjustment. Delinquents and criminals certainly have difficulty in 'hewing' to the line of law and social observance. Hence it was hoped that the Q-score would serve as an index of the strength of delinquent tendencies.

* Emeritus Professor of Clinical Psychology, University of Hawaii; Late Referee, Juvenile Court, Honolulu.

A follow-up study, published in 1945 (Porteus, 1945), showed that fifty delinquent boys averaged 48 points, within one point of the former delinquent average. Criminals ($N=100$) scored 58 points, or one point more than the previously obtained average. But in testing the hypothesis that a high Q-score was specifically related to delinquency, it was soon apparent that the complex of traits might have significance in wider areas of conduct, not necessarily delinquent. Teachers were asked to select for testing groups of children, who were not unintelligent, but who were school behaviour problems and were found to be lazy and undependable in carrying out assigned tasks. In one school twenty-five such cases scored 48 points, equal to the delinquent average, while twenty-eight pupils in a second school averaged exactly the same. On the other hand, 100 satisfactory pupils in both schools scored 23 points, confirming the previously obtained non-delinquent results.

The schools chosen were in areas with high delinquency incidence, so undoubtedly some of the school problem-children would become delinquent, but by no means all. If the Q-score were interpreted as an index of social nonconformity then it was clear that, though all delinquents are social non-conformists, all social non-conformists are not delinquent.

It must be confessed that I was very surprised at the remarkable equivalence of the averages obtained in those two studies, especially when analysis of the totals derived from individual error categories revealed considerable variability in the latter. However, the results were published without special discussion of this point, other than the comment that the Q-scores obtained for delinquent groups were strikingly similar. If the close agreement were partly coincidental, I fully

expected that studies elsewhere by other investigators would differ somewhat in results from my own. This expectation, so far, has been agreeably disappointed. In 1944 Catherine Wright carried out a study at the Nelles School at Whittier, California (Wright, 1944). Her fifty-four delinquent boys scored 49 points in Q-score, exactly the average I obtained in Hawaii in 1942. The standard deviation (S.D.) of Wright's distribution was 28, while mine worked out at 25.

Another study was made by Grajales at Bellevue Hospital, New York, using as subjects delinquent boys who had been referred for psychiatric study (Grajales, 1945). These make up only 7 to 9% of all boys appearing before the Children's Courts of New York. As they were mainly recidivists Grajales considered them the more serious cases of delinquency. He also varied the testing procedure by timing their Maze performance, being careful to explain to his subjects that it was not a test of speed. Nevertheless, Grajales notes that some of the boys were obviously worried about the time they needed to go through the mazes. Any tendency to hurry would undoubtedly affect the Q-score.

Grajales's sixty subjects scored 56 points with a standard deviation of 29. He comments that as regards individual error items the New York delinquents cut fewer corners, made fewer mistakes in the easier Maze designs, and had fewer wavy lines than the boys in Hawaii, but they lifted their pencils twice as often and started off more frequently in the wrong direction. Compared with the California delinquents, his subjects made more mistakes in the earlier Mazes and lifted pencils more often and scored worse in 'wrong directions'.

It is noteworthy that when Grajales segregated the scores of twenty-five Negro boys, their average was 49, the same as that of the California and Hawaiian groups. Their standard deviation was 19. This investigator also compared Wechsler-Bellevue and Maze test age scores. Though the average I.Q.'s were within 2 points of each other, the correlation was only 0·43. A negative correlation of 0·22 between Maze Q-scores and Maze test ages showed again the independence of the two measures. Evidently there is no significant relationship between temperamental and mental traits measured by the two Maze scores, or between the cognitive and orectic aspects. Unfortunately neither Wright nor Grajales had any control group of non-delinquents and had therefore to accept my non-delinquent norms in order to interpret their results.

One of the most recent studies corrects this deficiency. In 1952 Richard Docter repeated Wright's study at the Nelles school in Whittier (Docter, 1952). He was able to compare the Q-scores of sixty delinquent boys with an equal group of non-delinquents 'matched for age, sex, I.Q., race, and wherever possible, socio-economic level'.

Again there was apparent a remarkable consistency as regards the average Q-scores. In spite of item variability Docter's mean for sixty delinquent boys was 47, for non-delinquents 25, with a critical ratio for the difference of 5. One other point not dealt with by any other investigator was the degree of agreement if two individuals scored the same tests independently. Docter obtained a correlation of 0·98 between two such scorings. He also related the length of the test, i.e. the number of trials, to obtained results, and found that this did not materially influence the qualitative scores. He concluded also that the weighting of individual qualitative errors was not 'greatly out of line' with the results of his study.

Interesting as the above findings are they do not throw as much new light on the interpretation of a Maze Q-score as did an investigation by Jensen (1952).

I understand that the group psychological tests (AFQT and ACB), given to men before taking basic airforce training (designated Basic Airmen) constitute a 6½ hour examination. A group of 633 men who failed these tests were re-examined by the Porteus Maze test, their performance being scored both from the qualitative and quantitative (mental age)

aspects. A graph demonstrated by Jensen shows their AFQT scores ranging from about 58 to 72, but in the Maze the range was from 44 to 121, the curve following closely that for the general population. Jensen reports: 'Clinical judgments as to mental potential are in very close agreement with Porteus ratings—not with ACB and AFQT scores. In the clinical situation every individual scoring high on the Porteus test presents qualitative evidence of power to plan ahead, to execute with precision and to adapt readily to tasks of increasing complexity. Once communication is established they emerge as vital, imaginative personalities, despite what we term cultural (including educational) deficiencies.' In another report (Jensen, 1952) the scores of 623 airmen obtained through five months of testing at Lackland Air Force Base showed that the average Maze I.Q. of 511 men recommended for retention in the service was 104, of 112 men recommended for discharge was only 70.

The vital question is, of course, whether the men, who would on the basis of AFQT failure have been rejected as being of too inferior mentality for basic air training, actually succeeded in that training. Of 180 men for whom end-of-training reports were available after five months nearly 72% were rated as satisfactory, and apparently only a little over 6% discharged. This performance is called very creditable. Jensen, is, however, very careful to state that this analysis of the situation is not complete, and more specifically that the clinical findings do not 'imply acceptance of the Porteus test as an adequate, or even acceptable present-day measure of mental ability of the generality of Americans of this or any other age group'. With this precautionary proviso the present writer would most heartily agree, but at the same time I believe that this study provides the strongest possible evidence of the test's place and value in any measurement of mental potential at ordinary levels of human functioning.

Turning now to the Q-score findings of this same group, and thus aligning this study with the general purpose of this article, we find the same general consistency of the mean scores as previously found, with, however, the important difference that Jensen's subjects were not criminal or delinquent. For this reason he calls the Q-scores 'cor formity ratings'. He says:

> Essentially the Q-score is a measure of how well the individual follows the instructions in the test situation. We have found it particularly useful in clinical evaluation when related to other measures. We prefer to call it a 'conformity' rather than a 'delinquency index'.

With regard to the claim that the qualitative score 'provides a reliable index of failure to set up normal self-standards in every-day activities', Jensen writes: 'We find this conclusion warranted when the Porteus Test scores are used with other pertinent data.'

It is unnecessary for me to disclaim any suggestion that the test should be used alone. The variable factors which may affect results, and particularly the Q-score findings, are too apparent to admit of complete trust in its unsupported verdict. Some of these factors such as poor motor co-ordination, weak vision, extreme 'nervousness', fatigue, are mentioned by Jensen and form the basis for regarding the Q-score as an index rather than a measure. No mental test, in my opinion, is anything more.

In the first of his two reports Jensen notes that 527 of his retested subjects who were retained in training averaged 25 points (S.D. 19) in Q-score, exactly the average obtained for non-delinquents in Docter's study. The mean score attained by 107 men recommended for discharge after retesting was 47 points (S.D. 29, recalculated from Jensen's Table 8) again agreeing exactly with the average obtained by Docter. In recapitulation the averages were: Porteus 49 (S.D. 25); Wright 47 (S.D. 28); Grajales 56 (S.D. 29); Docter 47 (S.D. 29); Jensen 47 (S.D. 29). The first four studies were concerned with delinquents.

The last-named investigator came to the following general conclusion: 'Generally, as measured by the Porteus Q-score and sup-

ported by clinical judgment, Lackland Air Force Base male basic airmen who fail the group psychological tests are not as conformity-minded as non-delinquents. We consider their non-conformity a major factor in the group tests. They choose to ignore instructions and are unwilling to expend the energy necessary for creditable performance. . . . The whites of this group are more inclined to non-conformity than are the negroes.'

This conclusion taken in conjunction with results already noted raises issues that go far beyond the military problem of fuller utilization of our human resources for defence purposes. It surely is of great significance that the men retained 'are nearly as satisfactory in basic training, according to training personnel, as are the other airmen in the flights in which they train'. But it is surely of more than incidental importance, as Jensen points out in his introduction, that so much talent goes undetected, when the national needs for skill are so pressing. For this obtuseness psychologists are very largely to blame. 'We have accepted those', writes Jensen, 'who possessed the ability, plus the motivation, plus the opportunity to equip themselves. We have neglected and exploited many more, equally capable, who lacked stimulus, or opportunity for development. These unstimulated, often unlearned, constitute a huge reservoir (of mental potential).' Nor does he leave us in doubt as to where this reservoir is deepest—in the deep South, the Border States and the Southwest. Negroes make up no less than 55% of those who fail the group psychological tests, even though they constitute only 18% of the total examined. But Jensen goes on to say, 'We find no evidence of deficient mental capacity in these Negroes. In fact, we find just the opposite.' If this be so, then it is evident that the commonly accepted means of indicating practical trainability are woefully inadequate. It may well be that mental examiners, for all these years, have been backing the wrong psychological horse.

The other observation with regard to the Maze test surprises me in view of the fact that I have always regarded failure as being more significant than success. 'Occasionally', writes Jensen, 'we find an airman for whom a low Porteus I.Q. is very unrepresentative. We have yet to find an airman who scored very high in the test (I.Q. 117 or higher) who did not provide other readily discernible evidence of intellectual power.'

This whole experience in the field of military training proves beyond doubt that the Q-score cannot be described merely as an index of delinquency. Apparently it would be better interpreted as an index of socio-industrial adjustability. To call it a social conformity measure does not seem altogether fitting. One can be too socially conforming, so that a too low Q-score may be interpreted as an unfavourable trait-symptom. The perfectionist is often betrayed by his excessive attention to insignificant details. However, it should hardly be necessary to emphasize that a psychological instrument is not a psychologist. Any sample of behaviour, whether it be maze-threading or otherwise, must be intelligently observed, otherwise it cannot be interpreted.

With the assistance of Mr Russ Takaki, probation officers' supervisor at the Honolulu Juvenile Court, a tabulation of test ages and Q-scores of delinquents has recently been made. Our subjects were boys between thirteen and seventeen years of age who had appeared before the Court in 1952 and for whom test data were available. Unfortunately, the tests had been administered and scored by different examiners at the Psychological Clinic of the University of Hawaii at different dates. The figures are not therefore as reliable as when scored by one psychologist. Inexperienced examiners, I find, are likely to err on the side of leniency in scoring. Lines of the Maze designs that are merely touched in drawing are not strictly penalized as 'crossed lines' and slight liftings especially when the pencil is put down in approximately the same place are occasionally disregarded. Examination of scored tests will sometimes reveal small breaks in the line which could only have occurred if the pencil were lifted momentarily. Hence

corrective changes in scoring are most likely to be in the direction of raising the Q-score.

Our subjects also differed in degree of delinquency from those previously studied. These latter were boys who had been actually committed to reform or industrial schools and thus were repeated offenders. Our figures relate to a group of boys, certainly delinquent, of whom only about 10% were later committed to the Training School. They may be regarded therefore as being less serious offenders. The group numbered 120 and their average Q-score was 42 with an S.D. of 22. As regards test ages by the Maze the mean I.Q. was 95 and the average chronological age 14·8 years.

A modification of the qualitative scoring procedure was recently used by Foulds in England (Foulds, 1951, 1952) the purpose being to discover whether the Maze test would serve to differentiate certain types of psychoneurotic patients, particularly those suffering from anxiety states or reactive depressions. These are called dysthymics by Eysenck, to be distinguished from the hysterics and psychopaths. Dysthymic behaviour is characterized by vacillation, psychomotor retardation, poor muscular co-ordination, and inability to concentrate attention on a task. Theoretically, these personality defects should show up in Maze qualitative performance. Division of attention or distraction is thought by Foulds to be the basis of vacillation and retardation.

Foulds recorded the length of delay in beginning the test after the necessary instructions had been given, and also the time taken to thread through the design. Instead of removing the test blank as soon as a blind alley had been entered, the examiner allowed the subject to retrace his course. He then counted the number of blind alleys entered which he scored under the heading W.D. (wrong directions). From some of his comments it would seem that the investigator was under the mistaken impression that this error was the same as I recorded under the heading W.D.

For example in my 1942 monograph he noted a statement to the effect that bus-drivers and criminals examined by me were approximately matched for intelligence as indicated by the fact that the prison group 'would not be much below that of the general population of equal social grade'. But, as he rightly observes, the W.D. score of the bus-drivers was very much lower than that of the criminals, and if 'the usual correlation between Binet scores and W.D. scores is 0·6–0·7' then the matching would be inadequate.

But W.D. as used by me is not by any means the same as W.D. in Foulds's scoring. As I use it, W.D. means self-corrected intention to proceed into a blind alley, not an actual entry into a wrong pathway. Some subjects do not, according to their actual drawings make clean-cut decisions at choice points in the Maze but start in the wrong direction and this 'wobble' or swerve is counted a qualitative error. It is, however, of minor importance, and its incidence would certainly not correlate 0·6 or 0·7 with Binet intelligence. Other studies show a negative coefficient. On the other hand Foulds's W.D. scores would correlate significantly with intelligence, since they represent entrances into blind alleys—on which the test age is based. The terminology 'wrong direction' is evidently misleading.

It should therefore be recognized that Foulds's procedures represent a very special modification of the use of the Maze. Included by him was a device previously but independently conceived by Chapuis in 1949. This consisted of marking each blind alley into three sections so that a measure of persistence in error, or degree of mental alertness was obtainable. He also scored performance for lifted pencils, cut corners and/or crossed lines, and wavy lines, individual error categories in ordinary qualitative scoring.

In general Foulds found that males in his normal control group worked faster than females, while older subjects preconsidered longer than younger subjects, but worked just as quickly once they began. The younger group were slower to correct errors.

Psychopaths and hysterics showed simi-

larities in performance, seemingly distinct from that of the other groups. They started quickly and proceeded rapidly with smooth flowing lines, but they crossed many lines, though they lifted their pencils seldom. Moreover, they showed less concern at finding they had entered a blind alley.

Patients with anxiety states start slowly, proceed fairly quickly, but with many wavy and crossed lines. Their performance tends to become worse after an initial error in entering.

Patients with reactive depressions are slow throughout, are forgetful and lift their pencils often, and make more mistakes in the early easier mazes. This last tendency I have ascribed to impulsiveness, a term which Foulds finds hard to reconcile with his observations and results.

A characteristic of the performance of obsessionals is their firm straight lines with carefully executed right angles, which with slow tempo would indicate a perfectionist tendency.

Foulds's observation that poor Maze performance under his procedures is closely linked with anxiety and depressive features might be compared with experience with patients who have suffered frontal lobe operations. Landis, Zubin and Mettler (1950) state that the most consistently observed post-operative changes consist of loss of anxiety, vigilance, and zeal. Apparently vigilance, and conceivably anxiety, work differently as factors in Maze performance, the one contributing to the avoidance of blind alleys, thus making for a good test age score, the other affecting adversely the qualitative score. Loss of vigilance and indifference may largely account for the decline in Maze quantitative score immediately following operation. Incidentally, it may be remarked that if the Maze is a test of vigilance there are very few other ways of testing a trait of such survival value. The Maze would thus be tapping an aspect of what has been called biological intelligence.

These viewpoints seem to point to the advisability of keeping the test age scoring quite distinct from the qualitative score, although for special purposes, as in Foulds's study, it would be wise to keep a record of time in starting after instruction, and time of completion. If this timing can be unobserved by the subject, it would be so much the better.

Incidental to this discussion, it might be noted that Sheer & Shuttleworth (1952), whose subjects had undergone a variety of frontal lobe operations, found that these patients, post-operatively, tended to increase this preliminary delay before beginning the test. It is, however, difficult to interpret this fact. It could indicate either psychomotor retardation or increased planfulness. These investigators also used a modified 'lift pencil' procedure and found that subjects post-operatively increased the number of errors; later they returned to a pre-operative level. The control group showed uninterrupted improvement.*

In a second paper Foulds (1952) described the effect of simple distraction (counting after the examiner) while threading the mazes. On the supposition that counting would temporarily obscure anxiety or depression the speed of performance of the dysthymic group was expected to increase. This assumption was based on the theory that a mechanical performance like counting would help to obliterate awareness of the patient's affective state. Thus his performance would more nearly approach that of the non-dysthymics, i.e. the hysterics and psychopaths. On the other hand with the latter cases distraction would act differently. It would not be helpful in diminishing the effect of affective awareness since this is not a feature of their psychosis: but on the other hand the distraction of attention would militate against speed of performance. Thus Foulds's predictions were that under distraction dysthymics speed of performance would improve, with non-dysthymics it would not improve and would possibly decline. Both these expectations

* The writer has now developed a practice-free supplementary Maze series, the use of which increases very significantly the reliability of the Porteus Maze. It is expected to have predictive value in selecting patients for psycho-surgery.

were upheld by the experimental findings and it was therefore claimed that the procedure would be useful in helping to gauge the intensity or depth of affective disturbance.

Such specific uses of a modified qualitative Maze scoring are interesting, but of more general concern are points of criticism raised by Foulds in relation to the method as a whole. Foremost is his objection that a summation of points of discrete categories of error would be 'psychologically meaningless'.

The same objection of course can be raised against a Binet or Wechsler score or any total score made up from the summation of points of mental age scoring derived from a number of disparate sub-test items. Within limits, such a scoring may be analysed and the contribution of the more important components noted. Thus in commenting on a qualitative score it would be proper to note evidence of poor motor control (wavy lines), haphazard or careless execution (cut corners or crossed lines), neglect of instructions (left pencils). Furthermore there are noteworthy differences between the individual who early plunges into an impulsive error, and the person who relaxes vigilance near the end of the test and lapses into an over-confident mistake. As an index of socio-industrial trainability such faults are significant.

Nevertheless, in my opinion, no test in the psychologists' repertoire is worthy of too detailed analysis. I have seen Binet scores, for example, reported upon with such attention to minute details as to give a false sense of objectivity and insight. Particularly true is this of tests such as the Rorschach. Diagnosis of personality trends based on trifling differences in perception and interpretation of meaningless material may degenerate into a system of projective signs no more reliable than graphology. The signs themselves may hold significance but their diagnostic evaluation would represent an almost insuperable task. Obviously the more variables the more difficult it is to assess their weight. It is difficult to see the clinical forest for the test item trees. Laboured analyses of performance of crudely accurate measures such as the Binet, the Porteus Maze or the Rorschach are likely to be unrewarding.

Summary

1. Earlier studies by the writer indicated significant differences between the Q-scores of delinquents and non-delinquents, also in fields of milder social maladjustment.

2. Two studies in California and one in New York by Wright, by Docter and by Grajales with delinquent groups were in remarkably close agreement with results previously obtained. Docter's investigation included comparison of delinquent boys with a matched group of non-delinquents.

3. Trainees for the U.S. Air Force who failed the group psychological tests at Lackland (Texas) Air Force Base were retested and over 500 men were retained for training on the basis of normal Porteus Maze performance. Their end-of-training reports were almost as satisfactory as for those who passed the screening test. Jensen states that the retained men were chiefly negroes and whites of poor educational attainments. Clinical observations supported the Maze test findings.

4. The qualitative score should therefore be interpreted as an index of socio-industrial trainability rather than an index of delinquency trends.

5. A supplementary study of delinquents in Hawaii gives a mean Q-score of 42 points for Court cases, as against 49 points for more serious recidivists.

6. Two studies by Foulds of psychoneurotic types were summarized and the procedure of summating penalties for disparate test-item scores is justified.

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TWO MONGOLS OF UNUSUALLY HIGH MENTAL STATUS

By C. A. STICKLAND*

The mean Stanford-Binet I.Q. for institutional cases of mongolism is stated to be 22·8 with a standard deviation of 7·9 points (Penrose, 1949). This level is usually too low for detailed analysis of specific abilities and disabilities to be made. Cases of mongolism are occasionally found with I.Q.'s of about 50 and, in these instances, it should be worth while to make a detailed study of the mental capacity. The present communication describes two adult cases whose mental functioning is far above the average level for the mongolian type. Accurate testing, however, reveals that the deficiency shows a highly characteristic scatter in both cases.

Case 1 (Mr A)

Male, aged 26 years (at time of testing)

His mother's age when he was born was 19 years, and his birth was followed by those of three normal sibs, two girls and a boy. He is physically a quite typical case as shown by facies, skull measurements, palmar markings, etc.

His education was given partly by his parents and partly in a small private school where he had individual attention. His parents and sibs regard him with affection and treat him as an individual with rights to be respected. He lives at home, is well-adjusted to his surroundings and is able to perform simple domestic tasks. He can make his way around the immediate neighbourhood unaccompanied and is a frequent visitor to the local public library.

A large proportion of his spare time is devoted to acquiring information on subjects that interest him, such as heavyweight boxers, railways, crime, medical knowledge and chemical formulae. This is obtained from newspapers, cigarette cards and books. In one notebook kept by him were quotations from newspapers concerning crimes committed, horse-racing results, details of circuses, names of boxers, a short and rather obscure autobiography, dates of important happenings in the war, names of strange weapons apparently culled from science-fiction stories, etc. His notebooks he regards as 'secret', but he relaxes his security restrictions on gaining confidence in someone who is interested in his 'researches'. After a time he will even allow him access to his 'top secret' memoranda and enrol him as a 'deputy' in his 'private investigations agency'!

An opportunity was given of testing him and his three sibs and the results are given in Table 1.

Table 1. *Test results with Case 1*

Subject and chronological age	Test	Result	
The subject, aged 26 years 3 months	Stanford-Binet, Form L	M.A. $6\frac{4}{12}$	I.Q. 42
	Stanford-Binet, Form M	M.A. $6\frac{10}{12}$	I.Q. 46
	Porteus Maze	M.A. $11\frac{0}{12}$	I.Q. 73
	Passalong	M.A. $11\frac{10}{12}$	I.Q. 79
	Koh's Blocks	Failed to score	
	Progressive Matrices	Score 8	
Unaffected sister, 17 years 6 months	Koh's Blocks	M.A. $\geqslant 19\frac{11}{12}$	I.Q. $\geqslant 133$
	Progressive Matrices	Score 57	>95th centile
Unaffected brother, 11 years 6 months	Stanford-Binet, Form L	M.A. $16\frac{0}{12}$	I.Q. 139
	Koh's Blocks	M.A. $13\frac{11}{12}$	I.Q. 121
	Progressive Matrices	Score 47	90th centile
Unaffected sister, 9 years 6 months	Stanford-Binet, Form L	M.A. $13\frac{1}{12}$	I.Q. 138
	Koh's Blocks	M.A. $12\frac{7}{12}$	I.Q. 132
	Progressive Matrices	Score 36	95th centile

* Formerly Psychologist, Harperbury and Cell Barnes Hospitals.

A was also given the Rorschach test. His record was chiefly noteworthy for the way in which it betrayed his interest in medical terms, the majority of his responses being anatomical in content.

His performance on the Binet test and his general behaviour are explicable on the grounds that he has a very good rote memory but little ability to use it in solving problems. On being questioned an association is set up which elicits a response; but whether it is the right response or not is often a matter of chance. A correct reply is made to most questions but occasionally he is caught by responding to a particular word or phrase that does not carry the full sense of the inquiry. The responses themselves do not sound like spontaneous replies to the questions, but are as formal in phrasing as in a book. They are, quite probably, direct quotations from books and other literature which he has read. Occasionally the mechanism fails to function as usual and the nature of the responses becomes clearer; e.g. he mentioned the King George V locomotive, and then, separated by other conversation, the Baltimore and Ohio railway (the latter reference being rather inconsequential). The reason for this was subsequently found in a cigarette card album of his—one of the cards referred to the exhibition of the King George V locomotive on the Baltimore and Ohio railway. Thus his irrelevant reference to the railway (in view of the immediately antecedent conversation) was in reality an association to the locomotive he had mentioned some time previously.

Further points of interest are his relatively high performance on the Porteus Maze test (especially in view of his ability to find his way about the district near his home) and an occasional slip of the tongue, e.g. *Uncle Com Tobleigh*, *Slesey Bill* (for *Selsey Bill*).

Case 2 (Miss B)

Female, aged 27 years

Her mother's age when she was born was 44 years, and her birth was preceded by those of two normal brothers. She is physically quite a typical mongol and has, among other traits, the characteristic facial appearance, dwarfed stature, round head and palmar markings. For a period of four or five years, until puberty, she was placed on pituitary and thyroid.

She was educated at a small private preparatory school at which she received individual attention. This education was supplemented by her mother, who has always been very patient with her. She lacked the initiative to do very much on her own and needed someone with her while learning.

She can embroider and paint to a pattern and could at one time play a few simple tunes on the piano. She could also ride a bicycle, which eventually became too small for her: a new one was purchased but she could not be persuaded to try it. She is said to be extraordinarily tidy and methodical and loves collecting things. When she was at home she helped in the house and liked cleaning and polishing. She is described as curiously sharp on occasions. For instance, she recognized a car, approximately fifteen years after it had belonged to her brothers, although they had owned two or three in the intervening period.

About six years ago she was admitted to a mental hospital, having become violent and uncontrollable at home. Some months previously she could not be convinced that the war was over and declared that all planes were enemy planes which were going to drop bombs. Later she became anxious about numerous people and finally had screaming attacks and was violent towards her parents. She had not been sleeping well for some time and, just prior to admission, had been complaining of pain in stomach and arms and of headaches. Nothing wrong was found on investigation. She did have an attack of 'gastric flu' prior to the commencement of the mental phenomena. She was discharged after eight months in the hospital.

When seen recently by the writer, Miss *B* was again in hospital, having once more become beyond the control of her parents. The content of her delusions is quite catholic, Russians, Germans and Americans having each played the leading role. She did not appear to have such a strong personality as the first subject, but, apart from her mental disorder, this may be due partly to the fact that she was seen in the unfamiliar surroundings of a hospital, whereas the first subject was visited in his own home.

A similar series of tests was administered to Miss *B* as to Mr *A*, and one of her normal brothers, living close at hand, consented to be tested also; the results are given in Table 2. Dr L. A. Kerwood kindly made available to me the result of his testing of Miss *B* with the Stanford-Binet, Form L.

B's Rorschach record was poor in quality, comparable with that of a low grade defective subject.

Discussion

It will be seen that there is considerable similarity between *B* and *A* in respect of the pattern of test results. This is further borne out by a consideration of the individual items of the Binet tests (Table 3).

ability to solve other items in the same year level. This is paralleled by their relatively poor performance on the Binet tests as wholes, compared with that on the Porteus Maze and Passalong tests.

One may speculate on the reasons for the relatively high intellectual level of the two subjects. Each seems to have a good hereditary endowment, apart from any genetical

Table 2. *Test results with Case 2*

Subject and chronological age	Test	Result
The subject, affected female, 27 years 9 months	Stanford-Binet, Form L	M.A. $6\frac{8}{12}$ I.Q. 44
	Stanford-Binet, Form M	M.A. $6\frac{4}{12}$ I.Q. 42
	Porteus Maze	M.A. $8\frac{0}{12}$ I.Q. 53
	Passalong	M.A. $11\frac{6}{12}$ I.Q. 77
	Koh's Blocks	Failed to score
	Progressive Matrices	Score 13
Unaffected brother, 38 years 1 month	Koh's Blocks	M.A. $\geq 19\frac{11}{12}$ I.Q. ≥ 133
	Progressive Matrices	Score 51 85th per centile

Table 3. *Detailed comparison showing similarity of reaction of* A *and* B *on Binet tests*

(+ indicates pass; − indicates failure.)

		Year V		Year VI		Year VII		Year VIII		Year IX		Year X	
Form	Item	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*
L	1	+	·	+	+	+	+	+	+	−	−	·	·
	2	+	·	−	+	−	+	−	−	−	−	·	·
	3	+	·	+	+	+	−	−	−	−	−	·	·
	4	+	·	+	+	−	+	−	−	−	−	·	·
	5	+	·	+	+	−	−	−	−	−	−	·	·
	6	+	·	+	+	−	−	−	−	−	−	·	·
M	1	+	+	+	+	+	−	−	−	−	−	·	−
	2	+	+	+	+	−	−	−	−	−	−	·	−
	3	+	+	+	+	+	−	−	−	−	−	·	−
	4	+	+	+	+	+	+	+	+	−	−	·	−
	5	+	+	+	+	−	−	+	−	−	−	·	−
	6	+	+	−	−	+	−	−	−	−	+	·	−

Taking the year levels in which both have failed at least one item we have, for Form L, nine similar results of items and three different; and, for Form M, nineteen similar results and five different. These similarities can be explained by a relative inability, common to both subjects, to solve items involving the meaningful use of words, compared with their

factors which may have influenced the condition, and each has received intensive individual education. Their parents have treated them as persons with rights of their own to be respected and, by their affection, have encouraged them to develop their interests. It can be seen from the tables that their sibs are of quite high intellectual level; *B*'s brother is a qualified

surveyor, and her father is a chemist. *A*'s relatives on both sides of the family had reached positions requiring a high level of ability.

Thus, with both individuals, nature and nurture have combined to raise their level of performance above that of most examples of mongolism.

Summary

A detailed description is given of two mentally defective subjects, with the clinical syndrome mongolism, who are much above the average intellectual level for this condition. In neither case is the physical diagnosis subject to any doubt and the pattern of mental disability in both is shown to be very similar.

Acknowledgement

My thanks are due to Dr N. M. H. Burke for the opportunity to see one of the subjects and to Professor L. S. Penrose and Dr L. A. Kerwood for helpful discussion.

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AN EXPERIMENTAL INVESTIGATION OF THE BLOCK DESIGN ROTATION EFFECT

AN ANALYSIS OF A PSYCHOLOGICAL EFFECT OF BRAIN DAMAGE.*

By M. B. SHAPIRO, M.A.†

The Block Design Rotation Effect is an effect produced by some subjects when they are doing the Block Design test, otherwise known as the Kohs Blocks. In this test the subject has to copy coloured patterns with diversely coloured one inch cubes. Some subjects, while reproducing the designs correctly, leave their blocks in an obviously rotated position. An example is seen in Fig. 1, which shows

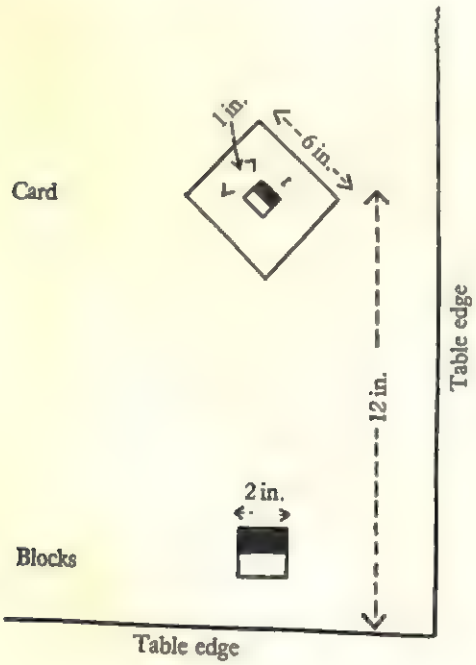

Fig. 1

at the top a card with a pattern on it, and below the rotated blocks. The experimenter has asked whether the reproduction is correct and the subject has answered 'yes' to this question. The amount of rotation shown in the illustration is equal to 45 degrees. This amount of rotation, though very rarely exceeded, itself occurs frequently.

Data have been published showing that this effect occurs much more frequently among brain-damaged psychiatric patients than among non-brain-damaged psychiatric patients (Shapiro, 1952). By 'brain-damaged' are meant patients who, at the time of the study, were considered by their doctors to be probably suffering from an anatomical lesion of the brain. Non-brain-damaged patients are those who, at the time of the study, were considered by their doctors as probably not suffering from such a lesion.

Data so far collected indicate that the rotation effect may be associated with lesions occurring in any part of the brain, including the basal ganglia.

The purpose of this paper is to present an explanation of the association of the rotation effect with brain damage, to explain the explanation, and to describe in some detail one experiment carried out to test that explanation.

The essence of this explanation is that one of the general dysfunctions sometimes produced by brain damage is the inhibition of a large number of incoming sensory cues which are usually at the disposal of normal persons. So much so that it is presumed that the perceptions of a brain damaged person can be similar in quality to those of a normal person in a dark room in which only the perceived object is illuminated.

This explanation was based first of all on a consideration of the nature of attention. The nervous system is subjected to a continuous barrage of simultaneous stimulation of various kinds and intensity. A small and ever changing portion of this stimulation finally develops the quality of consciousness. The rest is prevented

* Based on a paper read at the general meeting of the British Psychological Society, April 1953.

† Department of Psychology, Institute of Psychiatry, Maudsley Hospital, London.

from doing so. Thus attention has both positive and negative aspects.

This double character of attention is similar to certain observations of Pavlov (1927). He showed in his dogs that if one reflex was soon followed by another the strength of the second one could be considerably diminished. Pavlov called this phenomenon negative induction. His definition of it was that an excitatory process in one part of the brain could be followed by an increase or development of inhibitory effects in other parts.

When we come to consider the psychological effects of brain damage we find that the negative or inhibitory aspects of attention are often intensified in brain-damaged subjects. As an example, imagine a case in which the part of the brain that is especially concerned with the experience of touch on the right leg has been damaged. If the right leg is stimulated, the subject will perceive it and localize it, though perhaps imperfectly. If, however, the face is stimulated at the same time as the leg, then the sensation from the leg will disappear. As soon as the stimulation of the face is removed the sensation from the leg will reappear. This phenomenon can be produced while the subject is actually looking at the affected limb. A similar phenomenon has been demonstrated in visual perception. We have here an exaggeration of the phenomenon of negative induction to be found in normals. Bender (1951) has given this phenomenon, which he has described in detail, the name of extinction. To name it thus obscures the double nature of attention, its positive and negative aspects. It is therefore less accurate, and of less use as an explanatory concept from which precise deductions can be made. It would seem to be more accurate to say that brain damage can result in the intensification of inhibitory processes. Therefore the negative or inhibitory aspects of attention will be exaggerated. An inhibitory process is defined as one which removes or diminishes a psychological effect.

From these considerations one can deduce the proposition that when a brain-damaged subject is looking at an object, all the surrounding cues available to the normal subject will be less available to him. Now, there are indications that in this second situation the quality of a person's perceptions is influenced by the character of the available stimulation. For example, Asch & Witkin (1948*a*, *b*) have shown that if, in a dark room, a tilted illuminated rod is placed within the frame of an equally tilted illuminated square, the rod will tend to be seen as upright. Many examples of this fact can be found outside the laboratory. Thus the pilot flying at night through cloud could be flying at a steeply tilted position and still think he is flying upright, because the only positional cues of a visual nature available are those provided by the cockpit.

With this conception in mind let us go back to the block design test situation. Let us imagine a normal person in a dark room in which only the card is illuminated. (See Fig. 1.) First of all the card as a whole would tend to be seen as a square: at this stage, which of the upper sides of the square would be taken as the top it is impossible to say. Secondly, the *design* on the card would tend to be seen as a square: again there is at this stage no way of predicting which side is seen as the top. This is finally determined by the line of symmetry. The line of symmetry is the line which divides the design into two mirrored halves as in *K* and *L* in Fig. 2. This we have found provides a powerful

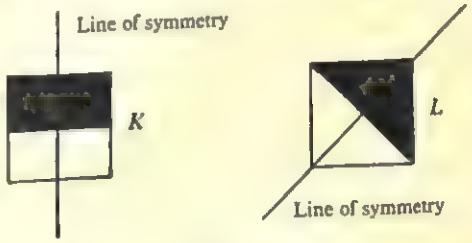

Fig. 2

and unambiguous positional cue. In our example this would mean that the right-hand side marked *t* in Fig. 1 would then be regarded as the top of our perceived square. Thus our subject would probably end up by perceiving a square in which side *t* was the top and it would be 45 degrees to the right of the actual top.

This phenomenon is similar to that of the pilot in the tilted aeroplane who thinks that he is flying upright.

Now, what happens when the subject has to manipulate the blocks to reproduce the design on the card above? In our test procedure he is forced to work near the table edge with the card 12 inches above the blocks. To continue our analogy of the normal person in the dark room, we would have to switch off the light round the blocks and turn it on round the table edge where the subject is made to work. The visual positional cues here will consist of the table edge, a limited area of the subject's body, and the wood graining. The perceived top will be exactly the same as the actual top: the perceived top in this situation is therefore 45 degrees to the left of the perceived top in the previous situation. The subject now begins to reproduce the design with the Kohs blocks. He makes, within this new positional framework, what he saw in the first one, a square. In fact the copy will have rotated about 45 degrees. (See Fig. 1.)

An important clue leading to this explanation was the actual laws determining the appearance and non-appearance of the block design rotation effect. Three laws have so far been established and the findings published (Shapiro, 1951, 1952).

The first of these laws is that when the line of symmetry of a design is at an angle to the vertical axis of the visual field, subjects will tend to rotate their blocks more. For examples, look at *c* and *d* in Fig. 3. When the line of symmetry is parallel to the vertical axis of the visual field the tendency to rotate will be decreased. (See *a* and *b* in Fig. 3.) All subjects who rotate do so according to this law.

The second law is also concerned with the design. When the design is in a diamond orientation, as in *c* and *d* of Fig. 3, the tendency to rotate will be increased. When the design is in a square orientation, as in *a* and *b* of Fig. 3, the tendency to rotate will decrease. Nearly all subjects who rotate do so according to this law.

The third law concerns the orientation of the whole card. This is exactly the same as that of the design. When the card is in a diamond orientation the tendency to rotate will be increased (*b* and *d* in Fig. 3). When it is in a square orientation, the tendency to rotate will decrease (*a* and *c* in Fig. 3). This law does not operate as consistently as the first two. When the directions of their influence are in conflict, the effect of the angle of the line of symmetry is greatest, design orientation next, and that of card orientation least. These laws are now based on results from over 100 subjects.

A brief recapitulation is necessary at this point. We have two main findings to consider about the block design rotation effect. The first is that it tends to be produced more by brain damaged persons; the second is that it is produced according to three laws of organization of the visual field—the angle of the line of symmetry, figure orientation and ground orientation.

The explanation put forward links these findings together in the following way. Brain damage is supposed to produce an exaggeration of the negative induction effects which normally characterize attention. The subject is therefore deprived of positional cues which are not at the centre of attention, but which are normally available. The three laws are in fact characteristics of the organization of the remaining space which have positional value for us. For example, if there is only a square available to perception, it is one of the sides and not one of the corners which will be seen as the top: that is why the three laws determine the amount of rotation.

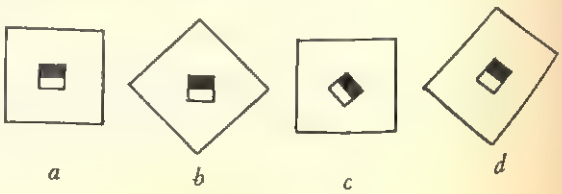

Fig. 3

Now we come to the experimental testing of the explanation of the block design rotation effect. The most obvious deduction was that normal people would rotate on the block

design test if we could in some way deprive them of their visual directional cues while they were doing the test. I shall now go on to describe an experiment which was made to test this deduction (Shapiro, 1953).

The material in this experiment consisted of a specially designed version of the block design test. This consisted of forty cards. Ten different designs were used, each design appearing four times in the manner shown by Fig. 3, *a*, *b*, *c* and *d*.

For the removal of directional cues two arrangements were made. First of all a mask was constructed which deprived the subject of all stimulation except that provided by a hole of about $\frac{1}{4}$ in. in diameter. The subject, when wearing the mask, could see only the card and some part of the surface of the table; or some part of the table edge, his own hands and part of his body.

The second arrangement was the provision of a piece of black felt which was placed on the table to complete the elimination of positional cues coming from the graining around the cards and the blocks.

A camera was used to photograph the product of each trial so that the amount of rotation could be objectively measured.

The special Block Design test was given to two groups of subjects. The first group was given the test with the special mask on and the black felt on the table. This group was called the 'pseudo-brain-damaged' group. The second group, the control group, was equated with the experimental group for age and sex. This group was given the Block Design Rotation test under normal conditions, i.e. without the special mask and without the black felt on the table.

There were twenty subjects in each group and they were between the ages of eighteen and thirty. None of them had a weighted Wechsler Vocabulary score below 6.

The results were consistent with expectation. The 'pseudo-brain-damaged' rotated slightly more than the original real brain-damaged group of patients. The difference was, however, not statistically significant. The control group rotated less than the 'pseudo-brain-damaged' group, the difference being significant at the 0·025 level. The second main requirement of the deduction tested by this experiment was also fulfilled in that the effects of the three factors, the angle of line of symmetry, design orientation, and card orientation, were all operating significantly in both the control and the pseudo-brain-damaged group in the required direction. (For detailed data, see Shapiro, 1953.)

Now for discussion and conclusions. It should be pointed out that the exaggerated negative induction effect does not apply only to perception, but to the total behaviour of the patient. For example, Eugen Bleuler (1911) made some observations of patients suffering from G.P.I. He says of such a patient: 'he will want to appropriate some object in his ward; he will steal it with a sly expression on his face and hide it carefully under his clothes, all this before the very eyes of the attendants and the other patients who, at the moment, have ceased to exist for him. The old man wants to satisfy his sexual drives. He sees in a little girl only the woman. He does not stop to consider the moral reasons which forbid sexual intercourse with children; he abuses the first child he happens to meet.' Then Bleuler actually ends up by saying of the paretic that 'he peeps at the world through a small hole'. This passage was found after the experiment was started.

It is now necessary to consider possible alternative explanations of the findings. The Goldstein-Scheerer (1941) theory that brain damage results in the disorder of figure-ground relations does not seem to explain the finding. The experimental situation implies, not a disorder between figure and ground, but that a large part of the available percepts have been totally removed. The remaining figure-ground relations continue to behave in a perfectly orderly fashion.

The theory of Werner & Thuma (1942) that brain damage results in dissociation, in a separation of mental activities, appears to be inconsistent with the facts. Bender's work on simultaneous stimulation above shows just the

opposite, the excitation of one part of the brain has an over-intense inhibitory effect on other parts.

Finally, a theory of disturbed set or attention seems not to account for the experimental conditions which could, if anything, be argued to have the effect of concentrating the attention of the subject on the task in hand. The results can only be explained in terms of the removal of positional cues which are normally available.

The main outcome of this paper is that the theories have been both sufficiently general and sufficiently precise to enable us to deduce the conditions under which normal persons were made to behave, in a limited respect, like brain-damaged subjects.

While there are many psychological effects of brain damage which cannot be explained by such theories, one can say that the possibility has been confirmed of laying the basis of an experimentally founded theory of the psychological effects of brain damage. Such a theory should permit a rational and systematic approach to the problems of treatment, training, and adjustment of brain-damaged subjects.

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A RE-INTERPRETATION OF THE ROLE PLAYED BY COLOUR IN THE RORSCHACH TEST*

By J. D. KEEHN†

The particular aspect of Rorschach's test which I wish to discuss in the light of experimental evidence is the role played by colour as a determinant in the test. Much emphasis has been laid upon the correlation between so-called emotionality and the use of colour in the test and few workers would disagree with the statement by Hertz & Baker (1943) that 'there is general agreement that colour factors give a measure of the stability of the emotional life'. Not only, as is well known, is this correlation said to exist between emotional lability and overt response to colour but also it is hypothesized that emphatic rejection of colour when associating to the blots is indicative of emotional constriction. It is mainly from experiments on the indirect reaction to colour (colour-shock) that doubt has been thrown upon the conventional interpretation of the use of colour in the test.

I have elsewhere summarized the results of experimental investigators of the colour-shock phenomenon [Keehn (1953*a*)], suffice it here simply to trace the broad outlines followed in terms of experimental techniques. The first attack on the problem was a rather novel experiment conducted by Brosin & Fromm (1942). They examined the Rorschach protocols of a small mixed group of patients all of whom possessed defective colour vision. Despite this malady there still emerged from this group a correspondence between severity of neurosis and degree of colour shock exhibited. As these subjects were all unable to appreciate the colour in the blots the explanation of colour shock in terms of colour seems improbable. The more standard procedure for determining whether or not colour is necessary for the elicitation of the behavioural reaction of colour shock is to employ a series of achromatic cards in addition to the normal Rorschach set in order to see if the removal of colour also eliminates the behavioural signs. Studies by Lazarus (1949); Sappenfield & Buker (1949); Perlman (1951); Dubrovner, von Lackum & Jost (1950), Buker & Williams (1951); Allen, Manne & Stiff (1951, 1952); Meyer (1951) and others all show that the removal of colour does not materially affect the responses. Similar negative findings were reported in a study by Rockwell *et al.* (1948) who used this technique and also introduced a physiological (psychogalvanic reflex) test of emotionality. Thus far, then, there is little encouragement for the continued belief that shock to colour is indicative of emotional constriction inasmuch as there is no evidence to show that the behavioural signs of colour shock have anything to do with colour whatever.

So far as studies of the overt use of colour are concerned, the emphasis has been laid on discovering whether colour-determined responses do or do not correlate with emotionality rather than whether colour really is the important determinant of these responses. Three main lines of approach have been followed: (*a*) studies where the Rorschach scores are correlated with indices of emotionality obtained from the personality tests or ratings [Clark (1948); Hertz (1935); Holtzman (1950*a*, *b*); Thornton & Guilford (1936)]; (*b*) experiments examining the effect of artificially produced emotions on Rorschach protocols [Williams (1947); Baker & Harris (1949); Eichler (1951)]; and (*c*) laboratory studies using physiological correlates as their external criteria of emotion [Goodman (1950); Levy

* Based on a paper read to the British Rorschach Forum on 4 May 1953.

† London University Postgraduate Scholar, Institute of Psychiatry, Maudsley Hospital, London.

(1950), Hughes, Epstein & Jost (1951); Plesch (1951)]. Little evidence supporting the Rorschach hypotheses resulted from these investigations, but it must be admitted that serious drawbacks in all these studies limit the value of the information gained from them. Not the least of these limitations is the difficulty of establishing an adequate criterion of emotionality other than a prolonged direct observation of actual behaviour. It was to overcome this difficulty that the present study was designed.

If it is to be assumed that reaction to colour has any correlate in the field of personality it follows that this reaction would appear to a greater or lesser extent in any test or situation where reaction to colour is possible. Thus a number of tests were constructed [see Keehn (1953*b*) for a detailed description of the tests and experimental procedure] all involving reaction to colour as a scorable response, and administered together with the standard Rorschach test under standard conditions as laid down by Klopfer & Kelley (1942) to some two hundred normal subjects. The results of all these tests were intercorrelated to see if, in fact, persons reacting to colour on one test tended to do so on the others as well. By so employing this form of internal (as against the more usual form of external) validation, the problem of defining such terms as emotionality was overcome.

Most of the correlations did turn out to be positive and far more than would have been expected by chance were statistically significant. Thus it would appear that the reaction to colour was indeed general to a large number of tests. However certain qualifications must be made.

One of the tests used, Lindberg's Ring test (1938), while designed as a test of colour attitude had also been interpreted by Lindberg (1950) as a test of analytic-synthetic (or part-whole) attitude. As Lindberg had identified colour and form attitudes with whole and part attitudes respectively it was decided in this study to include a few tests of the latter attitude with a view to testing Lindberg's hypothesis in addition to the main purpose of the experiment.

Correlations between these tests and the colour attitude tests were also calculated and these too turned out to be low but positive. When a Thurstonian centroid factor analysis (1947) was carried out on the whole correlation matrix two factors were extracted. Although it was expected that the first factor would be one of reaction to colour this could not have been so because the whole-part tests also had saturations on this factor. As reaction to colour could not have occurred on these tests by virtue of their construction some other interpretation of the factor patterns had to be sought. The solution was not far to find for a rotation of about 50° from the original axes yielded two practically independent factors determined by a number of colour-form sorting tests and the whole-part tests respectively. This solution satisfactorily overcame the earlier difficulty. However, and this is the crucial point, the Rorschach colour score, instead of falling on the colour-form axis, had virtually zero saturation with this factor but instead lay on the whole-part axis. This suggests that the so-called colour-determined responses to the Rorschach really arise from the adoption of an attitude to the card as a whole rather than from a direct attention to colour *qua* colour.

This indication that the Rorschach colour score does not depend upon colour *qua* colour fits in well with the findings mentioned above demonstrating the emergence of signs of so-called colour shock even in the absence of colour. It is also in accord with the findings of Schwarz (1951) who found a correlation between colour scores on the Rorschach and colour response to Lindberg's Ring test, because it can now be seen that colour is acting in an intermediary fashion in both cases. The fact that Vernon (1933) many years ago reported that 'there is not an identity of tachistoscopic form and colour measures with the Rorschachian form and colour scores' adds further support to the validity of the present findings, for one of the tests defining the colour-form factor in this investigation was a tachistoscopic

test after the manner of the type that Vernon was describing. Nevertheless it was decided that further direct evidence was required to place this somewhat accidental finding on firmer ground.

The necessary evidence was obtained in the following manner from the data already collected. Reasoning that the ten Rorschach cards were each performing roughly the same function and that consequently each card could be regarded as adding to the reliability of the information gained from its predecessors the responses to each card were considered separately. Thus each of the Rorschach cards was regarded as a separate whole-part test and every subject was given a score of W or D on each card according to whether either of the first two responses was a reaction to the whole blot or to part of it respectively.

A factor analysis of the intercorrelations between all the scores, the presence or absence of any form of colour determined responses to cards VIII, IX and X and the original whole-part tests from the first analysis yielded a general factor running through all the tests. The factor saturations of the tests carried over from the original analysis were practically the same in the second as in the first analysis, thus confirming the identity of the two factors. All the colour scores had saturations on this whole-part factor; the score on card VIII having a loading as high as 0·67. Thus the view that response to colour on the Rorschach test is largely dependent on the tendency to see wholes in the cards was confirmed.

Intuitively this revised view seems quite reasonable. If a subject or patient adopts an attitude of attending first to the whole blot, and then later breaking it down into its components, it is natural enough that when presented with a coloured blot he will also attempt to incorporate the colour as well as the form into his response. Conversely the person attending primarily to details would begin by abstracting and ignoring the colour initially and possibly would not pay any attention to it at all. It is significant to note that when the Rorschach records were re-examined specifically in terms of W and D responses it was found that in hardly any of the 200 protocols was a W response found other than in the first two responses. Similarly only in the protocols of a few highly productive subjects were colour-determined responses found after the first two responses to cards VIII, IX and X respectively.

Furthermore when those records in which an initial W response (first or second response) occurred on five or more of cards I to VII were compared with those having initial D responses on at least four of these cards the former were seen to contain more colour responses. Specifically forty-seven of ninety-four records in the former group contained colour responses to card VIII as against only seven out of thirty-nine in the latter. A similar investigation of responses to card IX by the two groups showed that forty-four of the W and seven of the D groups respectively contained responses determined by colour. Both these differences were highly significant, once again demonstrating the relationship between colour and initial whole responses.

So far nothing has been said as to how this investigation affects actual clinical application and interpretation of Rorschach's test. Indeed, it might be argued that as colour is only a medium by which certain responses are classified and considered together for purposes of interpretation it matters little whether this classification really depends upon colour or upon some other underlying function so long as the ultimate interpretation is reasonably correct. Thus even if it is not true to say that a correlation exists between response to colour on the Rorschach and affectivity it may still be correct to interpret those responses *apparently* determined by colour as indicative of emotional control.

However two things argue against this. First, much indeed is made of the 'colour-emotionality hypothesis', not only by Rorschach workers, but also by other personality theorists to the extent that this relation between colour response and emotionality is extended far beyond situations involving the Rorschach

test. Unfortunately the great majority of the evidence for this generalized theory does come from work on the Rorschach test, so for this reason alone responsible Rorschach workers should refrain from subscribing uncritically to the colour-emotionality theory *as restricted to this test*. Secondly, referring back to the Rorschach colour validation experiments listed above we find very little support for the view that the colour-determined responses are indicative of emotionality—at least in the way this personality factor is viewed by other authorities.

The present investigation may help in overcoming both these difficulties. Certainly if the results are taken seriously theorists will hesitate to place too much reliance upon Rorschach results in constructing generalized theories of personality, but more particularly, and this reflects both upon experimental studies and upon clinical practice, it will force all users of the test to be more stringent in their scoring of apparently colour-determined responses. Thus it is not intended that the results of this experiment should be interpreted as indicating that *all* response to colour is a function of a tendency to organize the blots into wholes or that this approach is the sole determiner of responses into which it enters. Rather it means that, in interpreting colour determined responses to the Rorschach cards, we must be careful to separate those responses which really do depend upon colour *qua* colour from those in which the role played by colour is purely incidental. So far the findings of the experiment reported herein throw no light upon this problem beyond pointing out the need for the practising clinician to review his material carefully with this end in mind.

In essence, then, this paper is in agreement with the current Rorschach practice of refusing to interpret individual signs without recourse to other modifying factors appearing within the records. In particular it suggests that the general practice of weighting M against sum C responses is insufficiently refined and that in all probability W responses should also be taken into consideration. In addition it is conceivable that colour-determined responses occurring initially to the coloured cards should be interpreted differently from those appearing later.

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REVIEWS

First Contributions to Psycho-Analysis. By SÁNDOR FERENCZI. Authorised Translation by Ernest Jones. (Pp. 338. 30*s.*)

Primary Love and Psycho-Analytic Technique. By MICHAEL BALINT. (Pp. 288. 30*s.*) Vols. 45 and 44 of The International Psycho-Analytical Library. London: The Hogarth Press. 1952.

Ferenczi's book is a collection of fifteen papers which appeared in German between 1908 and 1914 and were published in Ernest Jones's translation for the first time in America in 1916. The reprint of these early papers as a volume of the Psycho-Analytical Library is justified by the important influence they had on the development of the psychoanalytical movement, and they still read well today though they are outdated in their theoretical concepts and in many of the interpretations of the objective findings. The ideas by which Ferenczi influences present-day psychoanalysis most strongly, namely his theory of genital development, his emphasis on early object-relationships, and on the importance of the analysis of the transference-situation were not yet formulated at the time these early papers were written.

These ideas are elaborated by Balint who, together with his late wife, Alice Balint, were Ferenczi's pupils. His book is a collection of sixteen papers written between 1930 and 1952, one of which was written by Alice Balint and the majority of them was worked out in collaboration with her. Six of the papers have either never been printed before or appear here for the first time in an English translation. Balint criticizes the Freudian identification of sex and love. He believes that there exists an early object-relationship between mother and child, which he calls primary love, and which cannot adequately be described in terms of oral sexuality only. If analytical treatment is to be successful it has to lead to a 'new beginning' in which the primary love is experienced again. On the basis of these ideas Balint criticizes Freud's concept of primary narcissism, Abraham's description of the pre-genital libidinal development and, if I understand him aright, he relinquishes the concept of an instinct of aggression completely. Hate is a reaction to the frustration of primary love and not an entity by itself. All this is in keeping with findings of earlier critics of Freud and his followers, though, following the Freudian custom, their work is not mentioned.

Balint is not very adroit in formulating his own ideas. He describes primary love as passive or all-demanding and its object as a 'thing'. Thus he neglects the aspect of trusting, co-operative unity which is much more important for the mature love which develops out of it than the aspects which Balint emphasizes. (Alice Balint's paper on 'Love for the Mother and Mother Love' is much more satisfactory in this connexion.) Still more unsatisfactory is his description of active or mature love. This is to him 'an artefact or to give it a finer-sounding name, a product of civilization'. It is 'considerate, altruistic love which puts the gratification of the partner first'; 'The two partners must always be in harmony.' 'We must accept the fact that we have to give something to our object, in order to change the object into a co-operative partner.' All this sounds inadequate, wooden, or sentimental to me. Balint regards all that is human, civilized and different from animal behaviour as artefact and inferior. Thus he describes the mature love which retains elements of the trusting unity of the mother-child relationship in the following terms: 'Man is not only anatomically but also mentally a neotenic embryo.' '"Genital love", the true form and quintessence of adult sexuality, is in its original form homosexual, i.e. perverse.' Or '"Genital love" in man is really a misnomer. We can find genital love in the true sense only in animals which develop in a straight line from infantile ways of behaviour to mature genital-sexuality—and then die.' This is nineteenth-century positivism, i.e. Balint is caught in antiquated philosophical prejudices. Nineteenth-century thinkers liked to shock the philistines of their time by stark remarks which proved their fearless realism and scientific honesty. To call man mentally an embryo, or his mature love 'perverse', is certainly not science; and to speak of animal 'love' when one has defined love as something other than sex is not even logical. Nor do such remarks shock anybody any longer nowadays, for a misanthropic, anti-humanist form

of scientific positivism is the very philosophy of the philistines of 1950. Balint's book is a curious mixture of a fresh approach to certain of Freud's propositions and blind following of Freud in those ideas which are the weakest and most time-worn.

KARL M. ABENHEIMER

Biology and Language: An Introduction to the Methodology of the Biological Sciences including Medicine. The Tarner Lectures, 1949–50. By J. H. WOODGER. (Pp. xiv+364. 40*s*.) Cambridge: The University Press. 1952.

This is an interesting and valuable work, attractively written. Part I consists of an important discussion of methodology. An appendix contains a beautiful analysis of Harvey's hypothesis about the circulation of the blood. In Part II Professor Woodger introduces a system of mathematical symbolism which he has developed in order to apply Boolean logic to genetics to make the fundamentals of the subject precise. Psychotherapists are likely to find this too far outside their accustomed field to follow easily, but they will be compensated by Part III, which discusses not only the methodology of psychiatry, mind and body, and dynamic psychology but also puts in an eloquent plea for better education of medical students, to give them a chance of being more scientific, more human, and more psychologically minded.

The most important effect of the author's clarificatory work on genetics is to bring out that statements about heredity cannot be meaningfully made without referring not only to an appropriate set of parents of the offspring in question but also to the set of environments in which the offspring can attain adulthood. Even statements about the inheritance of red hair contain an implicit reference to this set of environments. Professor Woodger shows by quotation that eminent geneticists write unintelligibly by failing to make this explicit. The author evidently believes that the mathematical symbolism is needed and that it is a powerful tool of discovery. Certainly he has made some undoubted discoveries which the symbolism can express; but it may be doubted whether the symbolization was needed in order to bring this out. The question is important and merits discussion.

Professor Woodger banishes 'character' and 'heredity' from his special vocabulary, which does not seem really necessary or desirable. He illustrates his point by saying that the ordinary concept of heat is so vague that we have to use the scientific concepts that replace it. I would urge on the other hand that we know very well what is meant by 'a hot day' and that with a little trouble we could explain such usages quite precisely in terms of our scientific concepts of 'heat' and 'temperature'. Likewise his work would have gained greatly if he had gone carefully into the relations of the concept of 'heredity' as scientists use it, however slipshod their phrasing may be, to his own precise technical concepts. Readers of *The British Journal for the Philosophy of Science* will find recent work of Professor Woodger's which moves in this direction, but there is more to be done. He indicates that if 'heredity' means anything it is equivalent to his concept of 'environmentally insensitive'; but it is arguable that this interpretation is too narrow, for certain obvious examples of heredity appear to fall outside it.

While I believe that Professor Woodger could have made his contribution in a simpler way, the important thing after all is that he has made a contribution. For readers of this *Journal* each of the author's discussions is important—the fundamentals of methodology, the concept of heredity, and his view that what counts in medical treatment is the whole person.

J. O. WISDOM

Theoretical Models and Personality Theory. Edited by DAVID KRECH. (Pp. 142. 19*s*.) Durham (North Carolina): Duke University Press. 1952. London: Cambridge University Press.

This is a collection of eight papers by well-known authors. Their names will give a good idea of the themes they write on: Krech, G. S. Klein, von Bertalanffy, Hebb, Rapaport, N. E. Miller, Eysenck, Halstead, and Angyal. From such writers one expects something significant, but there is little that is new or striking in the book, and several of the authors seem to be off colour. One exception is Miller who writes very well on methodology; but it is sobering to think that he should have found it necessary to expatiate on a part of this subject that ought to be common knowledge. Another exception is Eysenck, who gives a brief but clear account of the method and goal of factor analysis. His sound defence of the

method loses some of its effect through an irrelevancy; he asserts, what does not seem to be required by his method, that *all* concepts must be operationally definable if they are scientific; but this overlooks the numbers of scientific concepts from force of gravitation to wave-function for which no operational definition is possible. Incidentally Bridgman, who introduced the idea in 1927, is reported on good authority to have given it up. The third exception is Angyal who writes well about the love-relationship. He introduces this theme because he thinks it has something to do with 'personality' and thus risks being irrelevant by being the only author to tackle this conception at all. His irrelevance is to be welcomed. For the rest the book is about the concept of a model; throughout the book it is taken for granted that a model is the same thing as a theory or as a highly abstract line of development in a theory. This loses sight altogether of the classical type of model, in which water pressure, say, was taken as a model for electric potential. In other words one theory can provide a model for another, and it is misleading to speak of a theory in itself as being a model.

The book affords clear evidence that scientists have little or no idea what they are supposed to be studying when they study personality.

J. O. WISDOM

A Textbook of Mental Deficiency (Amentia). By A. F. TREDGOLD assisted by R. F. TREDGOLD. Eighth edition. (Pp. xvi+546. 48 plates. 37*s.* 6*d.*) London: Baillière, Tindall and Cox. 1952.

The death of Dr Tredgold coming soon after he had completed the eighth edition of his text-book, has been a great loss to the field of mental deficiency. Dr Tredgold has been a pioneer in this branch of psychiatry, and the publication in 1908 of the first edition of this book did much to set up the study of mental deficiency as an integrated subject.

The book itself is too well known to need description. The present edition, produced with the assistance of the author's son, Dr R. F. Tredgold, follows very closely the previous two editions. The new material consists largely of bringing the references and clinical details up-to-date, and in the addition of several new plates of illustrations; there are 48 plates in this as compared with 38 in the sixth edition. The book bears very much the stamp of the author's robust opinions and convictions and this combined with a personal and discursive style gives an impression of individuality much nearer to the classics of clinical instruction than the present day text-books with multiple authorship. Such an individual treatment is not, however, without disadvantages, and the most obvious, particularly to the readers of this *Journal*, is the author's adherence to the academic psychology of the beginning of this century. He ignores not only all dynamic trends in psychology, but also the more academic attempts by different Gestalt schools to account for the psychology of mental defect and the description of personality based on projective tests.

The theory of intelligence testing and its clinical implications are rather neglected, and although a large number of tests is described in the chapter on clinical examination, mental tests are not considered in the chapter devoted to the discussion of intelligence. Dr Tredgold has remained to the last an unrepentant supporter of the theory of gene impairment, and the chapter on aetiology has a definite note of partisan pleading. A discussion of the methods used in the study of human genetics, such as is found in Professor Penrose's book, would have ensured a more objective approach and would have been of help to the student. It is also disappointing that he does not find more to say about the relation of early psychosis of children to mental deficiency, a subject in which there has recently been a renewal of interest, and one on which it would have been very interesting to have the comments of a clinician of Tredgold's experience.

In spite of all criticisms that may be made, the book still remains the most valuable to the student. It is thorough, complete and excels itself in its clinical descriptions. All the clinical material, psychiatric as well as organic, is illustrated by case material in a manner which conveys in a simple and pleasant way the author's vast experience. The social problem presented by deficiency has always claimed Dr Tredgold's attention and is very fully dealt with, though perhaps too gloomy a view is taken of the situation. The author's handling of the legal and forensic aspects is indeed admirable and he gives not only the most lucid account of mental deficiency legislation to be found anywhere, but also discusses the relation of psychiatry to the law, and has very valuable comment

to make on the practical aspects of psychopathy. The book remains a monument to Dr Tredgold's contributions to all aspects of the study of mental deficiency, and is certain to be the most authoritative text-book on the subject for many years to come.

A. SHAPIRO

REFERENCE

PENROSE, L. S. (1949). *The Biology of Mental Defect*. London: Sidgwick and Jackson.

The Science of Mind and Brain. By J. S. WILKIE. (Pp. viii+160. 8*s*. 6*d*.) London: Hutchinson. 1953.

In this sensible (though curiously named) little book, Dr Wilkie attempts to draw together recent experimental and clinical studies of the central nervous mechanisms governing behaviour. Although he wisely eschews metaphysics, his book is replete with facts of the utmost relevance to the body–mind problem. These facts, moreover, are on the whole well chosen, accurately reported, and given just enough of a theoretical context to carry the reader's interest. Anyone with an elementary training in biology can read this book with enjoyment and profit.

Following a brief (though adequate) anatomical introduction, Dr Wilkie considers problems of correspondence, recognition and equivalence, 'field' theories of neuromuscular co-ordination, considerations of brain-weight and cerebral mass action, and some general problems of cortical localization. Lastly, he gives us an all too short discussion of the concept of integration and an appendix on cybernetics. There is a useful bibliography and index.

The author is perhaps at his best in elucidating the general relations between structure and function in the central nervous system and in appraising work of an experimental character, such as that of Lashley or Sperry. The use which he makes of the findings of clinical neurology, on the other hand, is rather amateur and one may suspect that his acquaintance with this field is largely limited to books. Like most writers without personal experience of aphasic cases, for instance, Dr Wilkie leans much too heavily on the descriptions of Head. None the less, his attempt to draw upon both experimental and clinical evidence is praiseworthy and the resulting picture, if sketchy, will be of considerable help to the student.

It is always tempting to tax the author of an introductory text with his errors of omission, though it is not very likely that the suggestions so readily proffered by reviewers are taken very seriously either by the author or his readers. None the less, the present reviewer does feel that space might have been devoted to recent work on central mechanisms in emotion, to views about consciousness other than those of Penfield, to some account of the functions of the parietal lobes, and to the more recent experimental studies of brain mechanisms and intelligence in primates.

O. L. ZANGWILL

Social Psychology. By THEODORE N. NEWCOMB, with the assistance of W. W. Charters. (Pp. xi+690. 30*s*.) London: Tavistock Publications Ltd. 1952.

In this interesting book the author shows the consequences of reciprocal influence among human beings who interact with one another. These consequences are that individuals undergo bodily changes such that they come to act, perceive, think and feel in preferred ways in relation to their environments. The total organization of a person's predispositions to relate himself to his environment represents his personality.

The human part of the environment is stressed, since the book is a study of social psychology. Social environments are intricately structured in ways which correspond to shared frames of reference or norms. Group members communicate about common objects, including one another and members of other groups, by using shared norms or frames of reference. Thus many of the most important conditions which account for individual behaviour are in fact group conditions.

The same results of social interaction may also be viewed as group changes. Group members influence one another. They tend to change in common ways. Such consequences of interaction are parallel changes in many individuals, but they are also changes on the part of whole groups. Different groups develop relations of harmony or conflict with one another, and single groups develop strong or weak 'morale', and function with varying degrees of effectiveness.

These consequences of social interaction occur under orderly conditions, and we can verify our answers to questions about them and state our

answers as general principles. We are only beginning to build up a body of such principles, but without it the author considers that we can never hope to solve the urgent problems of our own and of future times.

R. W. PICKFORD

Cruelty to Children. A memorandum prepared by the Association of Children's Officers in response to a request from a Joint Committee of the British Medical Association and the Magistrates' Association. (Pp. 8. 4*d*.) 1953.

In this serious document the Association of Children's Officers gives a lucid outline of the problems relating to cruelty to children, highlighting the main issues to be considered in a scheme of preventive measures. The Association considers the problem to be a spiritual and social one, which can be solved only by healing the sickness of society. Cruelty to children is one symptom of the breakdown of family life and the failure to accept spiritual concepts about the unity and permanence of marriage and the parental duty of trusteeship of children, rather than ownership. It stresses at once the secondary effects of cruelty to children, showing that the child tends to suffer not only from the offence, but also the hardship of separation from the mother which often follows court action to relieve his sufferings, and which often cripples the child's moral and emotional development, even in the best institutions and foster homes.

Cruelty is clearly defined in terms of the Children and Young Persons Act 1933, 'mental derangement' being included in the term 'injury to health'. The types of cruelty are enumerated—assault and undue restraint, ill-treatment by various means including words and gestures, neglect, abandonment, exposure to the elements or physical danger. The causes of each type of cruelty are also given. Of these various types, neglect occasions the majority of cases brought to court. However, strong emphasis is laid on the finding that it is rarely a remedy to take children away because they are neglected at home. The operation of making a child emotionally deprived in order to ensure that he is physically nurtured has been described by a doctor as 'a most expensive way of standing on one's own head'. The most difficult cruelty to combat is that occasioned, often unintentionally, by courses of conduct which cause emotional suffering. A common case is that of the unwanted child who senses that he is rejected and responds by symptoms which make him even less acceptable; another is the child smothered by a too possessive mother; and the illegitimate child placed in an institution or a succession of foster homes. A stable family life is of the utmost importance to a child, and it is felt that a substantial reduction in the illegitimacy rate would mean a reduction in the incidence of cruelty.

Regarding the Law, a recent amendment in the Act dispenses with the need to proceed against an adult before bringing the child victim to court as being in need of care and protection. This is sometimes a good thing, but there is a risk of culpable parents going scot free, while the children are carried off to costly institutions. The present practice of almost automatically committing children to the care of the local authority whenever an offence has been proved is to be deprecated. The provision for placing children under supervision at home and for taking recognizances from the parents should be more widely used. The importance of trying at all costs to keep the family together is stressed, because too often the offender has gone unpunished, while the severe punishment of being taken away from their mother has been meted out to the children.

The Association acknowledges the care with which the body of lay Justices approach their responsible tasks, and respectfully proposes that a committal order should never be lightly revoked, once it is made. Revocation of orders should only be carried out when it is in the child's interest, and should not be looked upon as a reward to the parents. In this connexion the local authority is often faced by a dilemma; whether to plan for the child to go home or, alternatively, to plan a permanent substitute home. What must be avoided is vacillation and consequent failure to plan any security at all. Suggested remedies for the ill-treatment of children include churches, psychiatric and child guidance services, marriage guidance, education for citizenship, adequate houses, health visitors, home helps, services to help unmarried mothers, health services, skilled social work, etc. In discussing the economic aspect of prevention, the Association makes no apology for calling attention to the cost of failing to make adequate provision and stresses that the remedy lies in spending sufficient money on the various preventive services.

S. F. LINDSAY

Social Service and Mental Health. By MARGARET ASHDOWN and S. CLEMENT BROWN. (Pp. 260. 16*s*.) London: Routledge and Kegan Paul. 1953.

Training for psychiatric social work in Great Britain, as this book reminds us, was established with the backing of the Commonwealth Fund of America by British teachers trained in U.S.A. The profession has, however, developed differently in many ways East and West of the Atlantic, not least in respect of the production of a professional literature; in all the twenty-three years that psychiatric social workers have been training in Great Britain, this is the first book by British authors to be entirely devoted to their training and professional problems. The authors played a major part in the establishment of the first British training course, the London Mental Health Course, and their chapter on 'Origins and Growth' shows how much concerned they and their colleagues were to shape the training in relation to local demands, and yet to 'keep an even keel' when these were found to be mutually conflicting. This Course, for many years the only one in the field, achieved a rather protean character. Avoiding commitment to any one school of dynamic psychology or to any specific body of technique, it provided practical experience and some eclectic teaching of personality development and psychiatry, on the basis of which the students might develop a variety of approach as great as that of the psychiatrists who required their co-operation, and a fluidity which facilitated adaptation to the demands encountered in employment of various kinds.

The authors are concerned to evaluate the processes of selection and training with which they had been associated for fifteen years, on the one hand in respect of reliability of prediction of the ultimate level of performance of the subjects in their professional field, and on the other in respect of utility as a preparation for the demands which they encountered in employment. This gallant undertaking has been carried out with admirable courage and integrity. It has involved the authors in giving a brief history of the British profession, and in description and discussion of the methods of selection and training used, and the varieties of psychiatric social work which have developed in various types of agency, some of which were themselves unforeseen during the period of training under consideration. The authors are remarkable for the catholicity of their attitude. They distinguish the psychiatric social worker as a supportive, non-directive caseworker, who is able to understand and tolerate phases of dependency and hostility in her clients, and who guides and encourages them in the paths of self-discovery, but 'there is room within this general method for work of many kinds at many levels'. To quote from the final chapter: 'This book has frequently laid stress upon the value of variety, of flexibility, of allowing things to happen and of being available rather than intervening. This might suggest a form of *laissez-faire* to which we should not in fact wish to subscribe, if we failed to point out that we have also stressed the importance of standards and of imposed conditions in all three phases—selection, training and professional practice.' Nothing could sum up the standpoint of the authors better than this. Standards are unquestionably implicit throughout, though they may seem at times to be rather elusive and indefinable. Conclusion is rarely reached. One controversial point after another is opened up and discussed with broad-minded impartiality—and then left open for further discussion.

The weak spot of the book is Chapter III, in which three examples of casework are given for the benefit of readers unfamiliar with psychiatric social work. The intention is modest, and no one could expect that in less than twenty pages justice could be done to a field of work admittedly so various; but the paucity of literature on this subject gives this chapter an importance far greater than was intended. One would like to have seen an example of a mental hospital case in which the social worker had more control of the situation, and in which the dice were less heavily loaded against the therapeutic effort by the gross instability of the mother; and some consideration of the methods by which one can hope to help a patient to free himself from extreme hostile dependence on his mother would have been welcome. One would also have preferred that the example of work in a psychiatric out-patient clinic should have presented fewer atypical and controversial features, ably as these are defended as being within the responsibility and professional judgement of an experienced worker. The child guidance case exemplifies well the uncovering and acceptance of the mother's sense of guilt, the tracing back of anxiety to its roots in the client's early experiences, and the acceptance of hostility as an expression of anxiety; but there is no example of the type of

work in which transference elements in the worker-client relationships are recognized and discussed as reflexions of the client's early relationships.

This book is a monument to an epoch; to read it sharpens one's awareness of how much discussion and thinking has gone on in the last five years. Already in the period under review a number of workers in the field were attempting to assimilate more of the content of dynamic psychology and to use it more fully in their work. Psychoanalysis and analytical psychology were represented in some of the training centres by the early 1930's, but this book shows how slight was their impact on the academic training until the war brought closer contact. The whole question of how far, and in what ways, psychiatric social workers can appropriately make use of dynamic psychology, especially if they have not had a personal analysis, is an unsettled and controversial question to-day; but the possibilities are being explored and demonstrated, and it seems unlikely that any future book on psychiatric social work will relegate this question to the peripheral position it occupies in this one. ELIZABETH E. IRVINE

Psychiatry To-day. By DAVID STAFFORD-CLARK. (Pp. 304, including index. 2*s.* 6*d.*) London: Pelican Books. A 262. 1952.

A Pelican on psychiatry has been long overdue, and there must have been many psychiatrists who have toyed with the idea of producing one. Dr Stafford-Clark's book has filled this gap admirably, and though no doubt each hypothetical author would have produced a work with differences of treatment and emphasis, there can be few who could claim with honesty that they would have done it better than he has done. The range is wide, the outlook broad, the writing clear, and the facts almost entirely accurate. The author does not stress unduly any particular point of view, unless it be his own religious beliefs. He gives good summaries of physical and psychological methods of treatment, and the expositions of psychodynamics are much more accurate than is usual in a book written by one who is not primarily engaged in psychotherapeutic practice.

There are one or two errors of fact: the coining of the word 'complex' is ascribed to Adler instead of Jung, and the work on mental defectives mentioned on pp. 89 and 90 should be credited to E. O. Lewis and not by implication due to defective indexing to A. J. Lewis. Finally, I think there will be many psychiatrists who will disagree with his statement about leucotomy to the effect that it has been 'to all intents and purposes restricted to cases in which spontaneous recovery appeared out of the question'. Taken as a whole, however, the book is excellent, and its wide dissemination among the intelligent reading public should do nothing but good. If a further edition is called for, I hope the author will amplify the sections dealing with child psychiatry and give some account of the recent work on deprivation of maternal care in the early years. I would also like to see short selected bibliographies for further suggested reading at the end of each chapter. J. B. S. LEWIS

Forensic Psychiatry. By HENRY A. DAVIDSON, M.D. (Pp. 398. $8). New York: The Ronald Press. 1952.

This large American work is divided into two sections dealing respectively with (1) The Content of Forensic Psychiatry, and (2) The Tactics of Testimony. Civil and Criminal Law, Marriage and Divorce, Testamentary Capacity, Juvenile, Sexual, and Alcoholic Offenders, Malingering and Malpractice, Commitment Procedures, and Torts as related to the mentally ill, are all covered in satisfactory detail. There are also Appendices dealing with a Legal Lexicon for Doctors, a Psychiatric Glossary for Lawyers, Guides for the examination of The Criminal Defendant, The Personal Injury Claimant, The Testator, Mute Patients, The Allegedly Drunken Driver, The Juvenile Offender, and for the Determination of Competency.

The book is clearly written and its detail is meticulous, perhaps at times a little too much so. If it is accurate in its description of American Laws (as to which I am not competent to judge) it should prove of great value in that country to those not experienced in court procedure. Its value in this country would naturally be less, but the general principles are sound and the author obviously has a good appreciation of legal ways of thinking, and gives excellent advice how best to put before a court the medical point of view. He is himself by no means blind to psychodynamics, but wisely insists on the necessity of a witness

keeping his feet on the ground and avoiding the use of psychiatric jargon.

He quotes extensively from American authors and American Case Law, but is not always up to date nor very happy in his few references to work in this country; for instance quoting Mercier's *Criminal Responsibility*, 1926, he seems to infer that in Britain to-day it is 'considered unsporting for the doctor to ask the accused if he has committed the crime.'

To readers over here there is much of interest in its exposition of differing state laws in the U.S.A., e.g. in some 12 states irresistible impulse is admissible as a defence, and under the existing laws of some States 'a sex psychopath can be released from hospital only if the superintendent certifies that he is cured'.

However, in spite of its American orientation, it is a book which would be of value to a psychiatrist in this country especially in respect of the forensic examination of his patients, the preparation of legal reports, and the giving of evidence in court. It serves as a guide to the inexperienced and a reference book for the proficient. J. B. S. LEWIS

Conditioned Reflex Therapy. By ANDREW SALTER. (Pp. ix+358. 20*s*.) London: George Allen and Unwin. 1952.

This book describes a therapy which claims to cure the psychoneuroses, character abnormalities, addictions, sexual perversions, etc. The author is a devout Pavlovian who has no time for therapies which are not based on sound physiological hypotheses. Psychoanalysis is anathema to him and freely distributed throughout the book are such remarks as 'Psychoanalysis is a witches' Sabbath of concepts that fades into air at the tolling of the Pavlovian bell'.

The neurophysiological concepts of excitation and inhibition are the foundation stones of the therapy. Human adjustment is a balance between processes of excitation and inhibition in the cerebral cortex. Salter proposes a new typology based on this hypothesis, an 'excitatory' personality and an 'inhibitory' personality. The former is eulogized and the latter regarded as the epitomy of all that goes to produce mental abnormality. For example, 'the inhibitory spend their days in mental acrobatics and their nights in insomnia', or 'They are the neurasthenics and the perpetually psychoanalysed'. Therapy is directed to increasing the patients capacity for 'excitation' and diminishing 'inhibition'. Salter describes a multitude of cases which give a good illustration of his methods and no doubt the mechanism of cure. For example, a patient with claustrophobia, 'You're like fly-paper...Tell people what you think at all times, regardless of whether its politic or impolitic. Down with Emily Post! Live with the shades up. Get the steam out!...' Salter has no doubt many successes but this has little to do with such theoretical concepts as excitation and inhibition. Never were theory and practice so divorced. Page after page reveals how energetically Salter assails his patients. If they are unable to tolerate this 'blitzkrieg' they have little hope with his method. A further example, 'I then become stern, and tell him that I am utterly unimpressed in the clap-trap that clutters up his mind. I am the authority, and he has come to consult me. He will do exactly as I say, if he wants to learn autohypnosis....'

The most that can be said for this book is that it provides the reader with an account of the amount that can be done if the therapist is forceful enough. It adds nothing to our understanding of mental illness. It is racily written and not unamusing at times. THOMAS FREEMAN

L'Astenza Sessuale (Sexual Abstinence). By S. FAJRAJZEN. (Pp. 333. L. 900). Milan: Fratelli Bocca. 1952.

This book, with its extensive bibliography, is the first attempt to present to the medical public a monograph containing the material on sexual abstinence, with ramifications into the fields of biology, anthropology, sociology, education, economics, ethics and religion. The author believes sexual abstinence to be a causal factor in depression, anxiety, psychoneuroses, sexual perversions, some psychoses, delinquency and psychosomatic disorders, although he emphasizes that in some few individuals there can be a 'complete sublimation' of the sexual instinct, from which great moral, cultural and spiritual benefits can be derived. Usually, however, erotic frustration may destroy the capacity to love oneself and others and so release dangerous aggressive forces. Beneath our civilization the author sees a blind evolutionary process, consisting in an antagonism between the

sexual drive and other biological and cultural forces, leading to sexual abstinence.

As the author is inclined towards the assumption that human beings are free, endowed with free judgement and free choice, he believes that after further research psychiatrists and others concerned with the problem will be able to intervene so that both animal and spiritual life will give up a certain amount of their sovereignty and become fused. His aim, viz. the diffusion of the *ars amandi*, seems to be precisely the task which depth psychology has already set itself and which it claims to have, to some extent, accomplished. The author does not, however, enter into a discussion of this point.

L. STEIN

The Normal Child. Some Problems of the First Three Years and their Treatment. By RONALD S. ILLINGWORTH. (Pp. 342. 30*s*.). London: J. and A. Churchill. 1953.

Professor Illingworth, a paediatrician, writes with wisdom and kindness on the development and problems of the normal child. It is refreshing to find a wide view taken of the subject. And it is an encouraging sign to see the paediatrician's field extended to include the behaviour of the healthy infant and young child in the family setting. The author largely draws from his own experience, but he also gives many valuable references to contemporary studies. There is a relatively long introduction on infant feeding. In this there is a strong plea for breast-feeding especially with a reasonable use of the self-demand regime. If the emotional and instinctual aspects of the feeding situation are not stressed, the general approach is nevertheless good and shows a great deal of sympathetic understanding.

Following upon a section of physical problems is a good account of some of the problems of development. Here the author freely acknowledges his debt to the outstanding work of Gesell. In the last section, the common behaviour problems falling within the normal are discussed. Not all the opinions here expressed would be generally accepted, but again the approach is tolerant and informed.

This is a practical book and will be of help to family doctors, parents, and to all those who work with children. Its many references will also make it a useful book to those who make this subject their field of study.

H. E. W. HARDENBERG

Some Common Psychosomatic Manifestations. By J. BARRIE MURRAY. (Pp. xii+285. 17*s*. 6*d*.) Second edition. London: Oxford University Press. 1951.

It is difficult to decide for whom this book is likely to be most useful. Although a great amount of work has gone into its preparation, it cannot be used as a simple text-book of psychosomatic disorders for it does not survey the whole field. Its title tends to be misleading, because only a limited range of psychosomatic manifestations is discussed, and many of the most common receive no mention. No less than 105 pages are devoted to miners' nystagmus, which is not a common manifestation in any generalized sense but of local distribution only. This is quite the fullest consideration of this subject in the ordinary psychosomatic literature, but unfortunately, although the author decides in favour of a neurotic origin for the condition, he does not develop any convincing picture of the underlying psychodynamics. In fact this is the greatest weakness of the whole book, that very little is said about how the manifestations arise if they are psychosomatic.

It has a value in arguing a case for a psychosomatic conception of much physical disease but it is grossly inadequate in what is admittedly the weakest but most important link in the chain, that of describing the way in which the emotional situations produce their physical effects.

R. E. D. MARKILLIE

Practical Child Psychotherapy. A Guide for the General Practitioner. Second edition. By CURT BOENHEIM. (Pp. 184. 15*s*.) London: Staples Press. 1953.

The merits of this book are its clear and balanced presentation and its emphasis on the medical aspects of child psychotherapy. Boenheim rightly points out that lack of sufficient medical knowledge is a danger in child psychology and that, in addition to the psychological approach, the somatic approach often deserves special attention.

The intimate relationships between psychological and somatic conditions are described in chapters on alimentary, urinary, sexual, motor and various nervous disorders. Of particular interest are descriptions of a combined psychological and physical treatment. In enuresis, for instance,

psychotherapy is combined with training; in tics with exercises; and in asthma with drug treatment and regulated exercises. A considerable number of case histories illustrate the text.

Quotations are given from Boenheim's own original and interesting work. Some historical remarks contained in the book are noteworthy, as for instance reference to the pioneer work in child psychology of Joseph Karl Friedjung.

This is an interesting book, not only for general practitioners, to whom it is primarily addressed, but also for specialists. The publishers have produced the book in a pleasing manner.

E. WELLISCH

Private World of Pain. By GRACE STUART; with an appendix by JOHN MALINS, M.B., M.R.C.P. (Pp. 191. 10*s.* 6*d.*) London: George Allen and Unwin. 1953.

Mrs Stuart suffered from rheumatoid arthritis from the age of seventeen to that of fifty; then the hope of cortisone appeared, and she began to write this book. In it she reflects upon her life as an arthritic, upon the psychology of the chronic invalid, particularly in its psychosomatic and 'psychosocial' aspects, and upon 'a good philosophy of living with chronic arthritis' which the author eventually finds 'just a good philosophy of living'. Mrs Stuart has had some experience of psychoanalytic therapy, and this in conjunction with her own excellent intellect and intuition has helped her to the achievement of a mature outlook and of illuminating insights, both so well expressed here that this book should be to the medical psychologist an interesting exercise in feeling himself into the patient's skin.

The appendix on the present position of cortisone therapy is simply enough written for non-medical readers, and quite informative enough to refresh the memories of medicals. J. D. UYTMAN

Psychology without Tears. By Dr W. A. O'CONNOR. (Pp. 220. 12*s.* 6*d.*) London: Rider and Co. 1953.

It is a pity about the name of this book, for the book is good, sincere and straightforward, not glib and flippantly smartish as the title hints. Here, of course, there is not the whole of psychology, but there is a well-written digest of the working psychology of a working psychiatrist. This book is a good introduction to medical psychology, and could well be adopted as a book for medical students taking their pre-clinical course in psychology—really the medical psychology of the normal human. The psychologies most used in contemporary work, including the depth psychologies, are well if briefly explained, psychosomatics receive due consideration, and there is a short but useful bibliography. In future editions the author could well omit the little anti-communist tirades which break the exposition and unmistakably date the book as belonging to the cold-war period. J. D. UYTMAN

Progress in Neurology and Psychiatry, an Annual Review. Vol. VII. Edited by E. A. SPIEGEL, M.D. (Pp. 604. 70*s.*) London: George Allen and Unwin.

This series of annual reviews has proved a valuable guide through the mountains of literature appearing every year. The editor has secured the co-operation of many workers prominent in their respective fields and most of the reviews are excellent. There is only one critical comment to make: most contributors reviewed almost exclusively American and British publications. It can only be hoped that the disregard of the work which is going on outside the English-speaking world will not be reciprocated by those workers who do not write in English. This is a problem which calls for serious attention at a time when the knowledge of foreign languages has become a rare asset among medical men. E. STENGEL

A General Selection of the Works of Sigmund Freud. (Pp. 118. 8*s.* 6*d.*) *Civilisation, War and Death.* (Pp. 332. 10*s.* 6*d.*) Psychoanalytical Epitomes, Nos. 1 and 4. Edited by JOHN RICKMAN. London: Hogarth Press. 1953.

Many students will be glad to learn that the Hogarth Press is reissuing the original volumes in this series and that it is intended to add further works under the editorship of Drs W. H. Gillespie and Clifford Scott. During the last few years various condensed accounts of psychoanalysis have appeared but it is doubtful if any of these fulfil their aim as well as the first of the *Epitomes*—a fine tribute to the knowledge and skill of the late Dr John Rickman. J. D. SUTHERLAND

OBSERVATIONS ON THE NATURE OF HYSTERICAL STATES*

By W. RONALD D. FAIRBAIRN†

In addition to such intrinsic interest as hysterical states may be expected to possess for the psychopathologist, they must always assume a quite special significance for him owing to the fact that it was upon the intensive investigation of these states that modern psychopathology was founded. It was, of course, at the Salpêtrière in Paris that this investigation was originally set in motion by Charcot; but it is to Janet, his pupil and successor in research, that we owe the formulation of the concept of hysteria as a recognizable clinical state. Janet's achievement was not confined, however, to a classification and description of hysterical symptomatology. It included an attempt to provide a scientific explanation of the genesis of the phenomena displayed by the hysteric; and the explanatory concept which Janet formulated was, of course, the classic concept of 'dissociation'. In terms of this concept the hysterical state is essentially due to inability on the part of the ego to hold all the functions of the personality together, with the result that certain of these functions become dissociated from, and lost to, the rest of the personality and, having passed out of the awareness and control of the ego, operate independently. The extent of the dissociated elements was described by Janet as varying within wide limits, so that sometimes what was dissociated was an isolated function such as the use of a limb, and sometimes a large area or large areas of the psyche (as in cases of dual and multiple personality); and the occurrence of such dissociations was attributed to the presence of a certain weakness of the ego—a weakness partly inherent, and partly induced by circumstances such as illness, trauma or situations imposing a strain upon the individual's capacity for adaptation.

Dissociation as described by Janet is, of course, essentially a passive process—a process of disintegration due to a failure on the part of the cohesive function normally exercised by the ego. The concept of 'dissociation' thus stands in marked contrast to the concept of 'repression' formulated somewhat later by Freud in an attempt to provide a more adequate explanation of hysterical phenomena. Freud was familiar with the investigations conducted at the Salpêtrière, to which he himself paid an extensive visit; but his researches into the nature of hysteria were preponderantly of an independent character. Thus his explanatory concept of repression was based essentially upon his own experience of the reactions of hysterical patients in his practice in Vienna. In particular, this concept was derived from a fundamental observation on his part and his appreciation of the significance of the observed phenomenon, viz. that the hysterical patient displayed an active resistance to his therapeutic efforts. The fact of resistance has now become so familiar to psychopathologists that the very mention of it seems to demand an apology. What is not universally appreciated, however, is that the resistance of the hysterical patient is not so much a resistance to the psychotherapeutic process as a *resistance to the psychotherapist himself*. Be this as it may, it was to explain the resistance that Freud postulated the process of repression; and, since resistance is an active process, it was as an inherently active process that repression was conceived by Freud. It is largely for this reason that the concept of repression has come to supersede that of dissociation. For, being a dynamic

* Based upon a paper read to the Medical Section of The British Psychological Society on 28 October 1953.

† Member of the British Psycho-Analytical Society.

concept, it lends itself, as the concept of dissociation does not, to providing the basis for a comprehensive investigation of the dynamics of the personality; and, in actual fact, it is the foundation-stone upon which the whole explanatory system represented by psychoanalytical theory has been built. At the same time I must record the opinion that the eclipse of the concept of dissociation, which has accompanied the explanatory ascendancy of the concept of repression, has not been altogether an unmixed gain. According to Janet, as we have seen, the dissociative process characterizing hysteria was a manifestation of ego-weakness; and, although it did not take Freud long to recognize that hysterical symptoms were the product of a defence springing from weakness of the ego, the presence of such a weakness is not inherent in the concept of repression as such. Further consideration reveals that the process of dissociation, as conceived by Janet, carries with it the implication of *a split in the personality*, variable in its extent and often multiple; and the view that such an underlying splitting of the personality is implied in hysterical phenomena is a view which I sought to substantiate in a paper written in 1944 (Fairbairn, 1944, especially pp. 81–2). Such a view is one which Freud himself at one time entertained,* but which he subsequently allowed to pass into abeyance as he concentrated upon the development of the concept of repression. The specific concept of splitting of the personality was, of course, one originally introduced by Bleuler to explain the phenomena of schizophrenia; but, in my opinion, there is no fundamental distinction between the process of hysterical dissociation, to which Janet drew attention, and that splitting of the ego which is now recognized as a characteristic feature of schizoid states.

The starting-point from which I was led to this view was not, however, Janet's concept of dissociation. It was a necessity to revise the concept of repression, which I found forced upon me in consequence of my explicit adoption of a psychology of object-relations. This in turn was forced upon me by what seemed to me the explanatory limitations of the impulse-psychology adopted by Freud at an early stage, and never abandoned by him in spite of its inconsistency with the ego-psychology which he subsequently superimposed upon it. In terms of Freud's ego-psychology, repression is, of course, a function exercised by the ego under the pressure of the super-ego for the control of impulses originating in the id. This view seems to me to involve *implicit* recognition of a necessary connexion between repression and splitting of the ego; but *explicit* recognition of such a connexion on Freud's part became obscured owing to the influence of his conception of the id as a source of instinctive impulses independent of the ego. This conception of the id enabled him to regard the occurrence of repression (in the form of repression of impulses) as compatible with the maintenance of an intact ego. According to my point of view, however, repression and splitting of the ego represent simply two aspects of the same fundamental process. Such a view was rendered possible for me by the fact that, after finding it necessary to replace a psychology conceived in terms of impulses by one conceived in terms of object-relations, I also found it necessary to resolve Freud's divorce of impulse (viz. id) from ego by adopting the unitary conception that ego-structure is itself inherently dynamic. These steps involved explicit recognition of the general principle that problems of the personality can only be adequately understood at a personal level and in terms of personal relationships. *Pari passu*, they involved explicit recognition of the inadequacy of any attempt to interpret problems of the personality

* This is evident from the following statement in his paper entitled *On the Psychical Mechanism of Hysterical Phenomena* published in 1893: 'Indeed, the more we occupied ourselves with these phenomena the more certain did our conviction become that splitting of consciousness, which is so striking in the well-known classical cases of *double conscience*, exists in a rudimentary fashion in every hysteria and that the tendency to dissociation . . . is a fundamental manifestation of this neurosis.' (See Freud, 1924, p. 34.)

in terms of post-Darwinian biology, and thus explicit abandonment of that part of Freud's theoretical system which aims at providing an explanation of problems of the personality in terms of instincts and erotogenic zones. From the resulting standpoint I have formulated a revised theory of repression, the nature of which may perhaps best be indicated by the following summary of the general views which I have come to adopt regarding the development and differentiation of the personality:

(1) The pristine personality of the child consists of a unitary dynamic ego.

(2) The first defence adopted by the original ego to deal with an unsatisfying personal relationship is mental internalization, or introjection, of the unsatisfying object.*

* Here it is perhaps necessary for me to explain that I can think of no motive for the introjection of an object which is *perfectly satisfying*. Thus, in my opinion, it would be a pointless procedure on the part of the infant to introject the maternal object if his relationship with his actual mother were completely satisfying, both within the emotional sphere and within the more specific sphere of the suckling-situation. As it seems to me, it is only in so far as the infant's relationship with his mother falls short of being completely satisfying that he can have any conceivable motive for introjecting the maternal object. This is a view which appears to present considerable difficulty for Melanie Klein and her collaborators, especially since the introjection of 'good' objects plays such an important part in their theoretical system. The difficulty in question is perhaps in no small measure due to the fact that, in previous formulations of my views on this subject [as recorded, for example, in my book *Psychoanalytic Studies of the Personality*, p. 93, footnote (Fairbairn, 1952)], I expressed the opinion that it was always 'bad' objects that were introjected in the first instance. However, I have now revised my previous opinion to the effect (1) that the differentiation of objects into categories to which the respective terms 'good' and 'bad' can be applied only arises after the original (pre-ambivalent) object has been introjected, and (2) that this differentiation is effected through splitting of an internalized object which is, in the first instance, neither 'good' nor 'bad', but 'in some measure unsatisfying', and which only becomes truly 'ambivalent' after its introjection. The manner in which I conceive the process of splitting to occur is indicated in the summary provided in the text above. It should be added, however, that a completely satisfying relationship between the infant and his actual mother represents a contingency which is only theoretically possible, and which never materializes in actual fact. From a practical standpoint, therefore, it may be regarded as inevitable that circumstances will arise to provide the infant with a motive for introjecting the maternal object. Such circumstances may arise at any moment after the cessation of intrauterine existence; and indeed the disturbance of intrauterine bliss by the birth-process itself may be regarded as representing such a circumstance.

It will not escape the notice of the reader that I describe introjection of the unsatisfying object as *a defence*—'the first defence adopted by the original ego'. This implies, of course, that I do not regard introjection of the object as the inevitable expression of the infant's instinctive incorporative needs—as something that just happens, so to speak; for, obviously, the aim of the instinctive incorporative need is not incorporation, whether physical or mental, of either the mother or her breast, but physical incorporation of the mother's milk. Nor can the process of introjection of the object (viz. the process whereby a *mental structure* representing an external object becomes established within the psyche) be regarded simply as a manifestation of that general perpetuation of experience which is described as 'memory'. It would appear, accordingly, that it is only when introjection is conceived as a defensive technique that this concept possesses any significant meaning. As it seems to me, the real problems lying behind the difficulty which my views regarding introjection present for Melanie Klein and her collaborators are the problems (1) of the form in which the child's experience of good and satisfying relationships is perpetuated within the psyche, and (2) of the manner in which the personality is moulded by such experience. These vital problems are hardly such as to lend themselves to discussion in a footnote which is perhaps already too long; but I can at least point out that, in terms of my theory of the development of the personality (as described in the summary appearing in the text above), the key to these problems is to be found in the relationship of 'the central ego' to 'the ideal object'.

(3) The unsatisfying object has two disturbing aspects, viz. an exciting aspect and a rejecting aspect.

(4) The second defence adopted by the ego is to reject and split off from the internalized object two elements—one representing its exciting aspect, and one representing its rejecting aspect.

(5) The internalized object is thus split into three objects, viz. 'the exciting object', 'the rejecting object', and the nucleus which remains after the exciting and rejecting elements have been split off from it.

(6) This residual nucleus represents the relatively satisfying, or at any rate tolerable, aspect of the internalized object, and is therefore not rejected by the ego, but remains actively cathected by it under conditions which render the term 'ideal object', appropriate for its description.*

(7) The rejection and splitting-off of the exciting and rejecting objects constitute an act of '*direct and primary repression*' on the part of the ego.

(8) Since the exciting and rejecting objects remain cathected while in process of being repressed, their repression involves a splitting-off, from the substance of the ego, of two portions representing the respective cathexes of the two repressed objects.

(9) The splitting-off of these two portions of the ego from its remaining central portion represents an act of '*direct and secondary repression*' on the part of the latter.

(10) The resulting endopsychic situation is one in which we find a central ego cathecting the ideal object as an *acceptable* internal object, and two split-off and repressed ego-structures each cathecting a *repressed* internal object.

(11) The terms 'libidinal ego' and 'antilibidinal ego'* have been adopted to describe respectively the repressed ego-structure cathecting the exciting object and that cathecting the rejecting object.

(12) The term 'antilibidinal ego' has been adopted on the grounds that the repressed ego-structure so designated, being in alliance with the rejecting object, has aims inherently hostile to those of the libidinal ego in its alliance with the exciting object.

(13) Being a dynamic structure, the antilibidinal ego implements its hostility to the aims of the libidinal ego by subjecting the latter to a sustained aggressive and persecutory attack which supports the repression already exercised against it by the central ego, and which it thus seems appropriate to describe as a process of '*indirect repression*'.

(14) Although direct and indirect repression of the libidinal ego are two processes of a very different nature, they are both included under the single term 'repression' as understood by Freud; but it is to be noted that Freud took no account of direct repression of the *antilibidinal* ego by the central ego, except in such incidental references as are contained in the passages in *The Ego and the Id* (Freud, 1927, pp. 52–3, 74–5) in which he raised the questions why the super-ego is unconscious, and whether, in the case of the hysterical personality at any rate, this instigator of repression is not itself subject to repression—questions to which the exigencies of his own theory did not permit of a satisfactory answer.

(15) Although the antilibidinal ego, the rejecting object and the ideal object are all independent structures playing different roles in the economy of the psyche, they are all included by Freud in the comprehensive concept of 'the super-ego'; and this source of

* I have previously employed the term 'ego-ideal' to describe this internal object (see Fairbairn, 1952, pp. 135–6); but I now feel it desirable to adopt the term 'ideal object' for its description, and so to emphasize its object-status and bring it into terminological alignment with 'the exciting object' and 'the rejecting object'.

* I have previously employed the term 'internal saboteur' to describe this ego-structure (see Fairbairn, 1952, p. 101); but I now feel it desirable to adopt the term 'antilibidinal ego' for its description, and so to emphasize its ego-status and bring it into terminological alignment with 'the central ego' and 'the libidinal ego'.

confusion may be obviated by recognition of their independent character.

(16) The endopsychic situation resulting from the twin processes of repression and splitting, which have just been described, is one which, in its general outlines, inevitably becomes established in the child at an early age, and in this sense may be regarded as 'normal'; but, especially in its dynamic aspect, it contains within it the potentialities of all psychopathological developments in later life.

(17) The conception of this basic endopsychic situation provides an alternative, couched in terms of personal relationships and dynamic ego-structure, to Freud's description of the psyche in terms of id, ego and super-ego, based as this is upon a Helmholtzian divorce of energy from structure no longer accepted in physics, and combined as it is, albeit at the expense of no little inconsistency, with a non-personal psychology conceived in terms of biological instincts and erotogenic zones.

Such then is the background of my approach to the problems of the hysterical state. So far as the hysteric is concerned, a characteristic feature of the basic endopsychic situation which I have just outlined is that the exciting object is excessively exciting, and the rejecting object excessively rejecting; and from this it inevitably follows that the libidinal ego is excessively libidinal, and the antilibidinal ego excessively persecutory. These features seem to me to shed considerable light upon the nature of the hysterical state; for they go a long way to explain both (1) the intensity of the hysteric's repressed sexuality, and (2) the extent of the compulsive sacrifice of sexuality, which is such a characteristic hysterical phenomenon.

The inner situation prevailing in the case of the hysteric may be illustrated in classic form by the following dream. It was recorded by a patient whom I shall call 'Louise'—a patient of the hysterical type, who originally consulted me on account of conjugal difficulties, but who had a previous history of psychosomatic symptoms. In the dream she found herself as a child in a short passage with a door at either end and a window in one of the walls. In front of each door stood a figure of her father facing her with what appeared to be a stick in his hand. One of these figures held his stick in front of his genitals pointing towards her in such a manner as to indicate clearly that it symbolized an erect penis, whilst the other figure was holding his stick above his head like a whip with which he was about to punish her. Louise herself was standing immobilized between these two figures of her father, dancing from foot to foot in a state of excitement and anxiety. Meanwhile, she saw through the window a procession of couples of men and women, who cast superior and scornful glances upon her as they passed by and observed her predicament. Their glances conveyed to her the impression that they regarded her as just 'a silly little thing'; and this was exactly what she felt about herself, overwhelmed as she was by a sense of utter helplessness and hopeless inferiority as she stood immobilized between the two figures of her father in the passage. Such a sense of helplessness and inferiority is, of course, a familiar experience for the hysteric in waking life, as indeed was the case with Louise; and the source from which this experience springs is well illustrated by the dream-scene. This scene represented an inner situation derived from the circumstances of Louise's actual relationship with her father in childhood; for her father was an erratic individual with manic-depressive characteristics, who treated her at times with attentions which could not fail to be sexually provocative, and at other times with thoughtless indifference and neglect which conveyed to her a sense of rejection on his part.

The presence of a similar inner situation in the case of a male patient, whom I shall call 'Morris', was revealed during the course of analysis in his description of the position in which he felt himself to be placed in his relationship with his mother. This patient

was also of a hysterical type, although his symptoms manifested themselves chiefly in the form of anxiety; and, significantly enough, it was upon his return home to his widowed mother with a wound after serving in the Army during the Second World War that he developed the acute anxiety symptoms which necessitated analytical treatment. The inner situation which emerged during the course of analysis was one in which he felt as if his mother was both holding down his erect penis and crushing his testicles with her hand; and he described himself as not only terrified that she would destroy his genitals if he struggled to get free, but also afraid that she would release her grip, since, if she did, it would put an end to the sexual excitement which her handling of his genitals provoked. Here again we find evidence of the simultaneous influence of an exciting and a rejecting object. It is true that Morris did not describe these two objects as separate in the imagined scene; but this may be accounted for, not only on the grounds that his description was at a conscious level, but also on the grounds that, as is so characteristic a feature of hysterics, he sought a masochistic solution of his dilemma in the inner world. For he explained that, in spite of his fear of castration by his rejecting mother, he also felt that the excitement which she provoked in him could only be allayed if she squeezed his genitals to the point of destruction, and that this eventuality would constitute the only means of providing him with complete sexual satisfaction. The actual situation in his childhood was, briefly, one in which, as the only boy in a family otherwise composed of girls, he was the object of excessive solicitude on the part of a fussy and possessive mother, who not only bound him to her libidinally by her attentions, but also frowned upon any manifestation of sexuality on his part, forbade him to masturbate and on one occasion inflicted upon him the trauma of slapping him for showing his penis to her. This situation, it may be added, was considerably aggravated by the fact that his father was a remote and inaccessible personality, and that he was thus deprived of a relationship which would otherwise have helped to rescue him from the toils of his mother and encourage him to develop an attitude of adult male independence.

The two pictures of the endopsychic situation which I have now described may be regarded as quite characteristic of the hysterical state; but it will be observed that, in both pictures, attention is focused almost exclusively upon the exciting and the rejecting objects. I propose in a moment to provide a picture in which attention is focused upon the three ego-structures involved in the endopsychic situation. Before proceeding to do so, however, I should like to say a word regarding the third internal object, viz. the ideal object. This object is found to be less commonly represented in the dreams of hysterics than the exciting and rejecting objects; but it frequently finds a place in their conscious phantasies. Thus another of my hysterical patients, whom I shall call 'Jean', recorded that, for many years previous to the breakdown which finally brought her to analysis, she had sought consolation in daydreams about a sexless marriage to a wealthy and indulgent husband who provided her with a luxurious house, innumerable servants, splendid motor-cars, elegant clothes, magnificent jewels and sumptuous food. She also sometimes imagined his providing her with children; but these children just appeared mysteriously out of nowhere without any preliminary intercourse, pregnancy or confinement. It will be noticed that such phantasies are characterized by a conspicuous absence of any element of sexual excitement on the one hand, or of frustration and rejection on the other. Both the exciting object and the rejecting object are thus excluded from such phantasies—as also, for that matter, are the libidinal ego and the antilibidinal ego. In other words, such phantasies represent a relationship between the central ego and the ideal object—and it may be added that the nucleus of the ideal object is the mother in so far as she has proved satisfying and comforting in infancy. This incidentally is the type of

relationship which the hysteric seeks to establish and maintain with the analyst in the analytical situation; and, although, under the pressure of transference, the analyst also soon comes to assume the roles of both exciting object and rejecting object, conscious recognition of this fact commonly meets with extreme resistance on the part of the patient, who characteristically reacts with anxiety or bodily distress to the threatened invasion of the analytical situation by these repressed internal objects.

After this brief reference to the ideal object, I shall now pass on to describe a dream in which the endopsychic situation prevailing in the hysteric is represented exclusively in terms of the three ego-structures. The dreamer in this case was the last-mentioned patient, Jean; and the dream was quite simple. It was about two dogs racing one another. One dog was white, and the other black; and the black dog won the race. Then Jean found herself comforting the white dog because it had lost the race; and, while she was comforting it, the black dog came and attacked it. The interpretation of this dream will present little difficulty in the light of my introductory remarks—especially since Jean's own comment on the dream was 'I suppose both the dogs are me'; for obviously the white dog represents the libidinal ego, the black dog the antilibidinal ego, and Jean herself the central ego. So far as the drama itself is concerned, the black dog's victory over the white dog in the race and its subsequent vicious attack upon the white dog provide a perfect picture of that dominance of the antilibidinal ego over the libidinal ego and that relentless persecution of the latter by the former, which are such characteristic features of the hysterical state; for self-deprivation, self-sabotage, a compulsion to sacrifice sexuality, and a need to suffer are typical hysterical features.

Jean's concern over the plight of the white dog in the dream also provides a typical picture of the hysteric's tendency to self-pity; for, although, as we have seen, the libidinal ego is repressed, the hysteric never ceases to lament the limitations, sacrifices and sense of inferiority to which its repression gives rise, to long for its restoration, and to envy those in whose case its repression has been less drastic. In addition, the hysteric entertains a tremendous sense of grievance, none the less present even when it is unconscious, against those involved in the outer circumstances in which the endopsychic drama had its ultimate origin. And here it becomes apposite to remark that, whereas the libidinal ego is pre-eminently characterized by libidinal need, the antilibidinal ego is pre-eminently characterized by aggression. Considered in conjunction, these two repressed ego-structures can thus be seen to reflect the early ambivalence of the child towards his objects. The child's aggression is, in my opinion, originally directed towards objects no less than is his libido (for I do not accept the concept of primary death-instincts); but the process of development whereby this original aggression comes to be directed mainly against the libidinal ego through the agency of the antilibidinal ego represents a very characteristic feature in the genesis of the hysterical state.

The pattern of circumstances which gives rise to such a development may be illustrated from the case of another hysterical patient whom I shall call 'Olivia'. This patient was sent to me primarily on account of 'anorexia nervosa'. She could only eat the scantiest of meals; and, when she went out anywhere, she experienced intense nausea associated with a sensation of painful contraction in the epigastrium. Indeed, even the anticipation of going out was sufficient to precipitate these symptoms, which were always at their worst where social engagements were concerned. She was never actually sick, but was terrified of being so; and her special fear of being sick in public had given rise to a superadded phobia of going out. The pattern of circumstances which had led to these developments had its original source in infancy. Needless to say, she had no direct memory of the incidents in question; but they had become quite familiar to her as the result of conversation in the family circle.

The position was that feeding difficulties developed at an early stage. Breast-feeding did not prove a success; and her mother found difficulty not only in inducing her to feed from a bottle in the first instance, but also in finding a suitable mixture for her once bottle-feeding had been established. As might be expected, she cried constantly; and, since her crib was in her parents' bedroom, this disturbed her father, who, finally driven to desperation, adopted the expedient of holding her down until she stopped crying. His technique proved only too successful; for it initiated an internal process, whereby she came to assume the role of, so to speak, holding herself down. In terms of the endopsychic situation which I have described, this internal process involved a relentless attack upon her libidinal ego by her antilibidinal ego, identified as the latter was in the most intimate fashion with her father as a rejecting object; and the effects of this attack manifested themselves directly in the inhibition of her oral needs, with the result that she habitually refused food throughout her early childhood. Inhibition of need also came to be applied to other functions of her libidinal ego. For throughout her childhood she was both constipated and retentive of urine; and, although, as she grew up, her constipation disappeared, her urinary retentiveness persisted; and she became sexually inhibited as well. The selective persistence of her urinary retentiveness was in no small measure bound up with the fact that her father reacted to it by constantly urging her to go to the lavatory to pass water, thus obviously playing the part of exciting object. By contrast, the management of her bowels remained in the hands of her mother, who, being less fussy and over-protective towards her than her father, constituted a less controversial figure for her. The fact that her father's fussiness and over-protectiveness extended to all spheres of her life still further complicated her relationship with him; for, whilst, as we have seen, the resulting interference with her life on his part had its exciting side, it also constituted him a very frustrating and rejecting figure for her. Thus, in his anxiety to prevent her coming to harm, he was constantly imposing restrictions upon her spontaneous activities. For example, on the grounds that she was a girl, he discouraged her from engaging in many of the more adventurous activities which he permitted, and even encouraged, in the case of her brother, who was four years younger. This had the effect of intensifying an already existent jealousy of her brother and encouraging penis-envy; and the guilt thereby engendered exacerbated the repression of her libidinal ego, and left it all the more at the mercy of her persecuting antilibidinal ego. Because she was a girl, her father also sought to protect her from sexual dangers by imposing considerable restrictions upon her freedom of movement and independence. In this respect, however, his efforts were not altogether successful; for she became the subject of several sexual traumata during childhood. Under the influence of guilt, these traumata led to further repression of her libidinal ego, especially where its genital component was concerned, and exposed it still further to persecution by her antilibidinal ego. They also led to increased repression of the exciting object; and this was reflected in intense fear of, and hostility towards men as sexual figures. The situation was further aggravated by the fact that the exciting effect of her father's solicitude was reinforced by his making her the constant object of provocative teasing. So far as the endopsychic situation was concerned, she was thus reduced to the state of helpless and hopeless immobility so well represented in Louise's dream of the two fathers. Only, whereas Louise was only partially immobilized in real life, Olivia had given up all effort and become almost completely passive by the time she came to me.

My account of Olivia's case, although of necessity very sketchy, should serve to illustrate the extent to which the development of hysterical symptoms depends upon the simultaneous experience of excitement, on the one

hand, and frustration or rejection, on the other—all in the setting of object-relationships.* It also enables us to appreciate the pattern of circumstances which leads to the repressive splitting-off, first of the exciting and rejecting objects from the original internalized object, and secondly of the libidinal and antilibidinal egos from the original ego. At the same time, it enables us to understand in some measure how the original ambivalence of the child towards an object who is both exciting and rejecting ultimately gives rise to an inner situation in which a repressed libidinal ego becomes the object of aggression on the part of a repressed antilibidinal ego, and thus to that compulsive sacrifice of libidinal activity which is so characteristic of the hysteric.

In the case of Olivia it is obvious, in view of her infantile feeding-difficulties, that her mother was the first object to combine in a big way the roles of exciting and rejecting object for her; and an infantile situation in which the mother plays both these roles would appear to provide the basic nucleus round which the hysterical personality is characteristically built. Hence the explanation of the fact that the libidinal ego of the hysteric is found to contain so powerful an oral component.*

Such a situation certainly arose in the infancy of Jean no less than in that of Olivia. For she likewise had been informed of early incidents arising out of an unsatisfactory relationship with her mother in the feeding-situation; and it is significant in this respect that, later in her childhood, she was addicted both to stealing sweets and to stealing money to spend on sweets. As an infant, she reacted like Olivia in that she disturbed her parents by crying during the night; and, as in Olivia's case, it was her father who was moved to take repressive action. The action which he took was, however, quite different from that taken by Olivia's father; for, instead of holding her down, he carried her to the drawing-room in her crib and left her to cry there, out of earshot, until the morning.

It is interesting to consider the significance of the fact that, in the case of both these patients, it was the father who intervened and assumed the role of rejecting object. Doubtless, in assuming this role, both fathers drew attention to themselves in the role of exciting object likewise. At any rate, it was usually her father's money that Jean stole in order to buy sweets. Similarly, there was a period in Olivia's childhood when it was her greatest delight to be given the top of her father's egg to eat at breakfast; and, with this in view, she would come down specially to the dining-room where at that time he breakfasted alone. This was before her brother had reached the stage of being able to do the same, and thus to compete for the top of her father's egg. When he did reach this stage, however, she abruptly

* I speak here of 'frustration or rejection'; but it is to be understood that, in terms of object-relations psychology, frustration is always emotionally equivalent to rejection. It is only in terms of impulse-psychology that 'frustration' can have a meaning capable of differentiation from that of 'rejection'; for, if the child is essentially object-seeking, frustration is inevitably experienced as rejection on the part of the object. Further, since the child's primary objects are always personal, it follows that the child is inevitably animistic, and that the world of inner reality established during childhood is inevitably founded upon an animistic basis. This inherent animism of the human mind is, in my opinion, ineradicable, and remains unaffected by sophisticated conscious thinking. It would thus also appear to follow that solutions of deep-seated emotional conflicts can only be satisfactorily effected in animistic terms—a fact which, as it seems to me, has important implications for psychoanalytical therapy.

* It was in the light of this fact that, on a previous occasion (see Fairbairn, 1952, p. 124), I ventured to state (1) that 'a sufficiently deep analysis of the Oedipus situation invariably reveals that this situation is built up around the figures of an internal exciting mother and an internal rejecting mother', and (2) that 'I have yet to analyse the hysteric, male or female, who does not turn out to be an inveterate breast-seeker at heart'.

abandoned her visits to her father's breakfast-table; and indeed her whole attitude to her father changed—her former display of eager interest in him being replaced by an outward air of indifference. Nevertheless, during the course of analysis she dreamed, not only constantly about food, but also on many occasions specifically about eggs, which had acquired the symbolic significance of her father's penis for her. The cases of Jean and Olivia may thus be taken as illustrations of the fact that, *whereas the sexuality of the hysteric is at bottom extremely oral, his (or her) basic orality is, so to speak, extremely genital.* This fact may be regarded as indicating that, in the case of the hysteric, it is characteristic for genital sexuality to have been prematurely excited—with the result that the libidinal ego contains not only a persisting oral component of a great intensity, but also a highly charged genital component which is all the more highly charged because it was prematurely stirred, and which is distinguished by an immature quality for a similar reason.

Such an association between oral and genital components may be illustrated from the case of a patient whom I shall call 'Ivy', and to whom I shall refer later at greater length with special reference to the sinusitis from which she suffered during part of her analysis with me. This patient recorded that, one day during a short break in the analysis, she became 'frightfully tired or dopey' and passed into a dreamy state in which she had 'a very real experience of being a baby at the breast'; but what she described as specially significant about this and other similar, but less vivid, experiences was that 'I always want something between my legs at the same time'. A similar association between oral and genital components was revealed in the case of another patient, whom I shall call 'Jack'. This is a patient to whom I shall also refer later, and who also suffered from sinusitis, albeit in a much more severe form than did Ivy. Meanwhile, I shall restrict myself to quoting a passage from one of Jack's dreams in illustration of the special point under consideration. The passage in question is as follows:

> I was in a room which was like the living-room of a house, but also like your waiting-room. In the room lay a leopard sprawled out sleepily on the floor. It was between me and the door. I wanted to get out of the room, but was afraid the leopard would spring at me if I made a move. So I put my hand on the leopard's head to keep it down and sidled round it to the side of it near the door. Then I quickly backed to the door and slipped out.

In associating to this dream-scene, Jack was not slow to recognize that the leopard represented a 'vital, energetic' side of his personality (libidinal ego), which presented itself to him as so dangerous, on account of its fierce and sadistic qualities, that he kept it permanently held down (as in the dream he held down the leopard). He was also not slow to relate the holding-down of this side of himself to the extremely passive attitude which he had adopted in early childhood towards his displacement, so far as maternal care was concerned, by an infant brother. Whilst, however, he experienced little difficulty in detecting the oral component in the symbol of the carnivorous leopard, it required interpretation on my part to bring home to him the presence of a genital component, in terms of which 'keeping the leopard down' represented keeping his penis down and preventing it erecting. This latter theme had already appeared, as I reminded him, in a previous dream about entering a lion's cage with a female keeper (representing his mother), who cowed a lion about to spring with the words 'Down, Caesar, down'; and, in the light of my interpretation, he was able to see the relevance of 'keeping the leopard down' to the vicissitudes of his sexual life.*

* I take this opportunity to point out that, whilst I have described the problems of the hysteric as essentially *personal* problems, I am very far from intending to minimize the importance of the *specific field* within which these problems are staged. I am equally far from

In the cases of Jean and Olivia, the premature stirring of genitality which appears to underlie the association of highly charged oral and genital components in the hysteric was doubtless related to the intervention of their fathers as rejecting figures at critical moments characterized by the activation of intense need. No actual evidence of such paternal intervention was elicited in the case of Ivy; but she did record the feeling that some genitally exciting incidents involving her father had occurred in her early childhood. How far such paternal interventions are typical of the early history of female hysterics is difficult to determine; but, in my opinion, a much more constant factor (and this applies to male hysterics also) is premature libidinization of the child's genitals associated with infantile masturbation. Such infantile masturbation represents an attempt on the part of the child to find consolation in himself because of the unsatisfying nature of his early object-relationships; but it also involves an identification of his genitals with the exciting object. However this may be, it is important to recognize that the experience of rejection in the presence of excitement due to the stirring of urgent need constitutes a traumatic situation of the highest order for the child; and it would be difficult to exaggerate the importance of the part played by such traumatic experiences in the genesis of hysterical states. Such would appear to be the truth embodied in Freud's original theory regarding the determining part played in the aetiology of hysteria by traumatic sexual experiences during childhood.

If we leave out of account this original, and later discounted, theory of Freud's, we may now allow ourselves to observe that classic psychoanalytical formulations regarding the aetiology of hysterical states invoke two quite distinct explanatory principles. One of these principles is that provided by the concept of the classical Oedipus conflict, involving as this does an incestuous fixation upon a parent. The other principle is that provided by the concept of fixation at a particular phase of libidinal development, viz. 'the earlier genital phase'. The former of these explanatory principles is obviously couched in terms of object-relations, whereas the latter is couched in terms of part-instincts and erotogenic zones. It is true, of course, that, in Abraham's classic formulation of the theory of libidinal development, stages of object-love are taken into account and related to stages of libidinal organization; but it is significant that Abraham described the first stage, viz. 'the earlier oral phase', as one of 'auto-erotism (without object)' (Abraham, 1927, p. 496). It is thus obvious that, in spite of the supreme importance which he attaches to object-love, his theory implies that object-love is essentially a secondary phenomenon arising in the course of instinctive development. This is the inevitable result of his uncritical adoption of Freud's impulse-psychology, in terms of which libido is conceived as a hypostatized group of instincts concerned primarily with pleasure-seeking aims. Such hypostatization of instincts and such psychological hedonism are not compatible with the psychology which I have come to adopt, conceived as this is in terms of object-relations and dynamic structure; and on a previous occasion I have tried to show that the hysterical state (like the paranoid and obsessional states, and, for that matter, the phobic state), is one which results, not from a fixation at a specific phase of libidinal development, but from the employment of a *specific technique* for regulating internal object-relationships established in early life (Fairbairn, 1952, pp. 30, 143).

From my point of view, of course, the concept of the classical Oedipus conflict, couched as this is in terms of object-relationships,

intending to minimize the importance of conflicts within a genital context on the grounds that it is within an oral context that the personal conflicts of the hysteric first manifest themselves. Indeed, as my reference to Jack's dream should in itself suffice to indicate, I consider the staging of conflicts within a genital context as a matter of special concern where the psychotherapeutic treatment of hysterical symptoms is concerned.

provides a more acceptable type of explanation for the origin of hysterical states than the concept of a fixation at 'the earlier genital phase'; but, from a comparatively early stage in the history of psychoanalysis, it has been customary to regard the emergence of such a phase as a precondition of the emergence of the classical Oedipus conflict, and thus to subordinate this latter concept to the requirements of the phase theory. However, this view has proved increasingly difficult to maintain in the light of more recent researches. Such researches, and conspicuously those of Melanie Klein, have drawn attention to the extent to which all psychopathological conditions are determined by conflicts arising long before the putative 'earlier genital phase' develops, and even in infancy (Heimann, 1952, Lampl-de Groot, 1952, van der Sterren 1952, and Gitelson, 1952); and that the hysterical state proves no exception to this rule is borne out by the data which I have already provided from the cases of Jean and Olivia. The attempt of Melanie Klein and her school to meet the resultant difficulty assumes the general form of ante-dating the emergence of the Oedipus conflict; but there are other psychoanalysts who prefer to stress the determining importance of pre-Oedipal conflicts, e.g. Lampl-de Groot (*loc. cit.*). My own views on this particular subject, although independent, are perhaps more in line with the solution offered by the latter group; for, in a paper written in 1944 (*loc. cit.*), I attempted to show that the Oedipus situation is not so much a causal phenomenon as an end-product, and represents not so much an explanatory concept as a phenomenon to be explained—i.e. a derivative phenomenon. I also attempted to establish that the Oedipus situation is one which has its roots in the vicissitudes of infantile dependence.* In this connexion it is relevant to point out that, whereas Freud's description of the psyche as constituted by id, ego, and super-ego was framed in terms of the Oedipus conflict, my own concept of the basic endopsychic situation is framed in terms of the original relationship of the child to his mother and the ambivalence which develops out of it. Thus, in my view, the triangular situation which provides the original conflict of the child is not one constituted by three persons (the child, his mother and his father), but one constituted essentially by the central ego, the exciting object and the rejecting object. Also, as I have attempted to show, it is in the setting of the child's relationship to his mother that the differentiation of endopsychic structure is accomplished, and repression originated; and it is only after these developments have already occurred that the child is called upon to meet the particular difficulties which attend the classical Oedipus situation. Regarded from this point of view, the Oedipus situation is one which develops in circumstances in which the child identifies one parent (usually of opposite sex) predominantly with the exciting object, and the other parent (usually of similar sex), predominantly with the rejecting object. This pattern of identification is, however, very far from being inevitable. Thus, although there was some evidence of the classical Oedipus situation in the case of Olivia, the rejecting, no less than the exciting, object was predominantly identified with her father—a fact which, incidentally, gave rise to an exceptionally stubborn resistance in the transference situation. Similarly in the case of Morris; for, although a classical Oedipus situation manifested itself in the earlier stages

* It is a remarkable fact that psychoanalytical interest in the classical story of Oedipus should have been concentrated so preponderantly upon the final stages of the drama, and that the earliest stage should have been so largely ignored; for it seems to me a fundamental principle of psychological, no less than of literary, interpretation that a drama should be considered as a unity deriving its significance as much from the first act as from the last. In the light of this principle, it becomes important to recognize that the same Oedipus who eventually killed his father and married his mother began life by being exposed upon a mountain, and thus being deprived of maternal care in all its aspects at a stage at which his mother constituted his exclusive object.

of his analysis, the more basic situation which was later revealed was one in which both the exciting and the rejecting objects were constituted by his mother.

In the final section of the present study I propose to discuss some aspects of the characteristic hysterical process of conversion. Hysterical conversion is, of course, a defensive technique—one designed to prevent the conscious emergence of emotional conflicts involving object-relationships. Its essential and distinctive feature is *the substitution of a bodily state for a personal problem*; and this substitution enables the personal problem as such to be ignored. All personal problems are basically problems involving personal relationships with significant objects; and the objects involved in the conflicts of the hysteric are essentially *internal objects*—and more specifically the exciting and frustrating objects, albeit the ideal object also comes into the picture. The endopsychic situation in question involves ego-structures, of course, no less than internal objects; but, so long as successful repression can be maintained, there is no occasion for resort to the defence of hysterical conversion. This defence is only mobilized in circumstances in which repression can no longer be successfully maintained and phenomena of transference (understood in the broadest sense of the term) threaten to objectify the repressed situation in the individual's ordinary life. The deeper the exploration of the circumstances in which hysterical conversion occurs, the clearer is the evidence that this defence is a reaction to specific outer situations which are essentially traumatic to the individual concerned, and which favour a revival and reactivation of repressed situations in the inner world. Thus the psychosomatic symptoms from which Louise at one time suffered were a reaction to circumstances in her marriage favouring a revival of the inner situation depicted in her dream of the two fathers. Similarly, Olivia's anorexia and all the symptoms which accompanied it were a reaction to her return home at the age of eighteen after several years' absence at a boarding-school abroad—the effect of her return being to reactivate the original situation with her father which had been internalized and repressed at an early age. During the course of analysis this situation became closely bound up with her relationship to me at the instance of transference; and the variations which occurred in the severity of her symptoms could then be seen to be related to the vicissitudes of the analytical situation.

In the case of Olivia the gastric localization of her conversion-symptoms was, of course, related to the fact that the original traumatic situation involving her father (viz. that in which he held her down in her crib until she stopped crying) was one involving the presence of intense oral need; but it is interesting to note that what actually precipitated the onset of her anorexia after her return home from school was a gastrointestinal infection such that her conversion-symptoms presented the superficial appearance of sequelae of the infection itself. Her case thus serves to draw attention to the part often played by precipitating factors in determining the particular bodily localization of conversion-symptoms. In the case of Jean, the complex of precipitating events was more general in character, comprising as it did in large measure the responsibilities of married life (for which she was ill-prepared), the deaths of both her parents, disagreements between her husband and her brother, the ill-health of her only child, and the compulsions of life during the Second World War. It is perhaps no coincidence, therefore, that her conversion-symptoms assumed a form characterized by the absence of any narrowly focused bodily localization; for she was racked from head to toe by pains and other distressing sensations which she described in terms of pulling, tearing, twisting, squeezing, hammering and the like. Incidentally, these various physical torments provide a good illustration of the effects of internally directed aggression; but it is on account of their generalized distribution throughout Jean's body that I cite them here. I should add that Jean also suffered

from a psychosomatic disturbance in the form of psoriasis; but the affected areas of skin were so scattered that even this condition conformed to the pattern of a generalized distribution. It is commoner, however, for conversion-symptoms to assume a more localized form. Frequently, as in the case of Olivia's anorexia, the precipitating circumstances involved a bodily organ, or bodily system, which was deeply involved in the original traumatic situation; but this is very far from being invariably the case. Thus it is my experience that, in these days in which the cruder manifestations of hysterical conversion, such as hysterical paralyses, are less in evidence than formerly, chronic sinusitis, accompanied as this is by blockage of the nasal passages, has become a not uncommon conversion-symptom. It could be argued, of course, that such a localization of the traumatic situation in the nasal region might be related to an infantile situation in which the child's nostrils became occluded through his face being pressed too close to the breast—a situation which might result either from excessive need on the part of the child or from excessive anxiety or possessiveness on the part of his mother; and this argument could be supported by the consideration that the salivation which characterizes oral excitement is liable to be accompanied by congestion of the nasal mucous membrane and intensified secretion on its part. Doubtless the influence of such a situation is significant in certain cases; but, so far as my experience enables me to judge, the incidence of sinusitis as a conversion-symptom is determined more commonly by the occurrence of nasopharyngeal colds in circumstances characterized by the experience of simultaneous excitement and rejection. It must be recognized also that the nasal passages lend themselves inherently to the symbolization of situations in which the expression and satisfaction of basic needs is denied to the child by parental figures. And in this connexion I may cite the case of the patient Jack, to whom I have already briefly referred, and whose sinusitis in adult life was historically related to anal retentiveness in childhood. Both these bodily manifestations of an emotional blockage were found to represent dramatizations of an internal situation in which his relationship to a dominating, possessive and frustrating mother was crystallized and perpetuated; and, when, at a favourable opportunity, I pointed out to him that he was dramatizing a state of imprisonment by his mother in his sinusitis, this symptom underwent a remarkable and almost immediate improvement. Chronic sinusitis was a symptom from which Ivy likewise suffered; and in her case it was actually accompanied by anal retentiveness in the form of periodic constipation—both conditions being provocative of intense anxiety. Ivy was by no means a typical hysteric; for it was on account of symptoms which were mainly depressive and obsessional that she resorted to analysis. However, she displayed unmistakable hysterical characteristics; and her sinusitis, which varied in intensity in relation to emotional situations both inside and outside analysis, was undoubtedly a hysterical conversion-symptom. She too had a dominating, possessive and frustrating mother, who functioned both as an excessively exciting and as an excessively frustrating object in the inner situation; and her sinusitis, like her periodic constipation, represented a localized dramatization of the inner situation involved in her relationship with her mother.

The cases of Jack and Ivy, revealing, as both do, a connexion between sinusitis as a conversion-symptom and anal retentiveness as a phenomenon having its source in early life, provide an opportunity for the development of a further theme. The case of Olivia is also relevant in view of the historical connexion between her conversion-symptom of anorexia and the anal and urinary retentiveness which characterized her childhood no less than her tendency to refuse food. I shall introduce the theme to which I refer by formulating the question, 'If hysterical conversion can assume the form of sinusitis, what is there to prevent its also assuming the form of anal retentive-

ness?' Both phenomena, it will be noted, represent the bodily manifestations of a personal conflict concerned with object-relationships. Both involve the localization of these manifestations in a restricted area of the body. And both involve the impairment or sacrifice of a bodily function which has assumed special libidinal significance. In spite of these similarities, however, anal retentiveness is not customarily regarded by psychoanalysts as a conversion-symptom, but rather as a phenomenon of direct anal sexuality in the first instance, and of fixation at a presumptive anal stage when it persists into later life. What has prevented psychoanalysts from regarding anal retentiveness as a hysterical conversion-symptom would thus appear to be the influence of the theory of erotogenic zones and the theory of libidinal development based upon it. I do not propose to repeat here the criticisms of these theories which I have recorded on previous occasions (Fairbairn, 1952, pp. 29–34, 138–43). Suffice it to say (1) that I have come to regard 'erotogenic zones', not as independent determinants of libidinal aims, but as parts of the body which lend themselves in varying degrees to the expression of *personal* aims, and (2) that I have come to regard the hysterical state as resulting, not from a fixation at the presumptive 'earlier genital phase', but from the employment of a *specific defensive technique* for the control of internal object-relationships which are the subject of conflict. As we have seen, the essential aim of this specific technique is the substitution of a bodily state for a personal problem; and the extent to which genital sexuality is characteristically involved in the personal problems of the hysteric provides no contradiction of this essential aim.

Some indication of the motives which impel an individual to resort to the hysterical technique of substituting a bodily state for a personal problem may be gathered from a statement made by Ivy in relation to a half-waking phantasy which, at one stage, she recorded. The phantasy was to the following effect:

> I was craving for you. Then I was lying face down on what seemed to be a bed of soap-flakes, and burying my face in it. Then it was Mother I was craving for. Next I felt I had a red-hot needle at my bottom. It was like Belsen.

And this is how she expressed herself, when encouraged to enlarge upon her phantasy:

> What I feel is that my head won't hold all the feelings in it. That would be unbearable. So the feelings have to go somewhere else—like the red-hot needle at my bottom. I have to get rid of the feelings from my head. I can't bear wanting Mother and not getting her. Rather than feel that, I make up a red-hot needle at my bottom. . . . I feel I must have an escape from facing big things happening with Mother. . . . Getting the feelings out of my head as a red-hot needle seems terribly important.

At this point it becomes a matter of interest to record an incident which occurred during a session with another patient whom I shall call 'Gertrude'. Although unquestionably a personality of the hysterical type, this patient did not suffer overtly from conversion-symptoms. That she was capable of developing such symptoms is, however, borne out by the incident which I am about to record, and which illustrates the conversion-process *in nascendo* under conditions which brought it under direct observation. At the beginning of the session in question Gertrude commented on the fact that she had noticed a theatre-programme lying in the waiting-room, and went on to state that she had seen the play in question on the previous evening. I, accordingly, volunteered the remark that I had also attended the performance and noticed that she was there. Thereupon she became extremely emotional and exclaimed:

> I feel angry about you seeing me last night. It means that you saw me in my private life; and that seems an intrusion. I never contemplated the possibility of your seeing me outside the consulting-room. The next thing will be that I'll start looking for you, as I did with Dr X.

I pointed out that she was trying to isolate her relationship with me from the rest of her life;

and I interpreted this as representing a defence against recognition of a wish on her part that her private life should include me in it, as it had previously included the other doctor. I added that she was angry with me because I had said something that threatened this defence, and that it was because of this threat to her defence that she felt that I was forcing myself upon her. She then proceeded to introduce an interesting modification of her original statement about feeling angry with me:

> I don't really feel angry with you. I just want to walk about the room smashing things.

I accordingly pointed out that her impulse to walk about the room smashing things represented another defence in the form of a deflexion of her aggression from my person to inanimate objects, but that, since everything in the room was mine, her aggression would still remain implicitly directed against me, however much she tried to conceal the fact from herself. This interpretation of the situation led to a further interesting development; for her next remark was:

> I don't really feel angry at all. I just feel certain kinaesthetic sensations.

I may explain here that Gertrude had some considerable knowledge of psychology before she came to me—and also some acquaintance with psychopathology, as will become evident in a moment. Hence her use of the term 'kinaesthetic sensations'. I now took the opportunity to suggest that she was adopting the defence of substituting a bodily state for a personal problem which concerned her relationship with me, and which arose out of a conflict between anger towards me and need of me (viz. out of ambivalence on her part). In reply to this, she indignantly remarked that I was just telling her that she had 'conversion-hysteria'. I thereupon explained that what I had really done was to point out that she had been in process of developing a conversion-symptom during the course of the last few minutes. This, as I see it, was a statement of actual fact; for she had converted a personal problem involving simultaneous need of me and aggression towards me into a bodily state experienced in the form of kinaesthetic sensations.

The incident which I have just described may be regarded as providing evidence that a tendency to hysterical conversion may none-the-less be present even in the absence of overt conversion-symptoms. It would, however, appear to hold equally true that, in the absence of overt conversion-symptoms, hysterical conversion may be confined to the realm of phantasy. Such, at any rate, would seem to be the significance of an incident which occurred in one of Morris's sessions, and which I shall now relate. In the course of the previous session the fact had emerged that, in the inner world, he was constantly engaged in an argument with his mother over his right to possess a penis and to use it as he wished—a right which, in the light of his mother's reactions (to which reference has already been made), he felt that she denied to him. This imagined argument with his mother assumed the essential form of an attempt on his part to convert her to a 'belief in penises', in place of the hatred of penises which he attributed to her (not without reason). More specifically, he sought to persuade her to accept his own penis, and to give him permission to use it; for, in his bondage to her, he felt that he did not dare to use his penis without her permission—except indeed in secret masturbation, about which he felt extremely guilty. It may be added that, since he felt his mother to be adamant in her refusal to give him the permission which he craved, he found himself in an impasse, in consequence of which he sought to make the best of a bad situation by extorting a masochistic satisfaction from his argument with her. In the course of the next session—that which included the incident to which I should like to direct attention—Morris recurred to the theme of the argument with his mother; and I took the opportunity to ask him why he felt that his ability to possess a penis was dependent upon her permission. To this he

replied that, whilst he longed to escape from his mother's clutches, he felt too guilty to leave her in view of the hatred which he felt towards her for not allowing him to possess a penis; and he added:

I can't do anything about it because I'm paralysed. It's like constipation. I'm almost afraid to do anything.

I accordingly expressed the opinion that he was disposing of his aggression towards his mother by turning it inwardly against his own penis as the embodiment of his sexuality (viz. his libidinal ego), and thus keeping himself in an emotionally castrated state. He thereupon remarked:

I think I get sexual pleasure out of castrating myself. It seems the solution of the problem I'm confronted with.... I'd rather castrate myself than have my mother do it. I'm virtually castrating myself to forestall my mother. If I were angry with her, she would get more angry; and it would finish up with her maiming my penis.

I now pointed out that, although it was true that he had been circumcised at the age of five on account of phimosis, his real problem was not a threat of actual injury to his penis by his mother, but *a clash of personalities* between himself and her over the question of his using his penis; and I added that he was trying to escape from the emotional distress of this clash of personalities by imaginatively localizing the drama in his penis itself. He then went on to say:

That ties up with my difficulty in getting my angry feelings out to her. Her reaction to my touching my penis or doing anything sexual shows me how terrible she thinks my angry feelings are. My angry feelings towards her are displaced to my penis;...and I have burning, angry feelings in it....You encourage me to bring up my angry feelings instead of having it all going on under the blankets; but that's like encouraging me to put my head under a guillotine and get my head cut off instead of my penis. Getting my penis cut off seems the lesser of two evils. (Pause.) I feel I want to go now.

The reader can hardly fail to notice the similarity between (*a*) Morris's remark to the effect that having his penis cut off was a lesser evil than having his head cut off, and (*b*) Ivy's remark about the importance of getting her feelings out of her head as a red-hot needle at her bottom. The particular juncture at which Morris's desire to terminate the session arose will also doubtless impress the reader; for this desire arose just when he felt that pressure was being put upon him to reverse the displacement of his angry feelings from his 'head' to his penis, and to face the clash of personalities between himself and his mother. The fact that such a desire should arise at this particular juncture would appear to indicate the defensive nature of the displacement in question; and the fact that this displacement was restricted to the realm of phantasy in no way affects the essential nature of the defence itself. For the aim of the defence employed by Morris differs in no significant respect from the aim of overt hysterical conversion—viz. the substitution of a localized bodily state for a personal problem.

Having now cited clinical material derived from three cases to illustrate the motives which impel an individual to resort to the defensive technique of hysterical conversion, it is high time for me to return to the theme from which I have digressed in so doing. This theme is one which I introduced by formulating the question: 'If hysterical conversion can assume the form of sinusitis, what is there to prevent its assuming the form of anal retentiveness?' So without further delay I shall go straight to the point and submit for consideration the hypothesis that *the data upon which the theory of erotogenic zones is based themselves represent something in the nature of conversion-phenomena.* We have seen how the process of hysterical conversion can confer upon the nasal passages a status equivalent to that of an erotogenic zone; for, in the cases of Jack and Ivy, these passages came to function in a manner which put them in all emotional respects upon the same footing as the anal

canal. The question which now arises, accordingly, is whether the anal canal itself did not become erotogenic for them in a similar manner—viz. at the instance of a conversion-process in terms of which a bodily state was substituted for a personal problem. Evidence of some measure of anal retentiveness was revealed in the early history of both these patients; and there can be no doubt that, in both cases, this represented a reaction to a dominating, possessive and frustrating mother. In terms of the theory of libidinal phases, this particular localization of emotional conflict would be explained as due to the instinctively determined occurrence of an anal phase; but, in my view, it can equally well be explained on the grounds: (1) that the function of defaecation lends itself inherently to the staging of a conflict between child and mother over the issue of the child's dependence or independence, and (2) that this function is one in which maternal intervention is particularly liable to occur. Such intervention certainly occurred in the case of Jack, whose mother frequently resorted to the use of suppositories as a means of overcoming his anal resistance. Similarly, one of the most traumatic memories of Ivy's childhood was that of having an enema forcibly administered by her mother (hence the localization of 'a red-hot needle at my bottom').

At this point I feel constrained to embark upon a digression concerning the general theory of erotogenic zones. In terms of this theory, the status of specific erotogenic zones is accorded to those highly sensitive areas where the mucous membrane lining the internal passages of the body joins the skin covering its external surface. The theory is not altogether consistent, however, in that, for some unspecified reason, the nostrils are omitted from the category of specific erotogenic zones—and this in spite of the fact that the function of breathing which they subserve represents one of the most basic needs. Be this as it may, it seems a justifiable reflexion that there is something artificial about the circumscription of the restricted areas to which an erotogenic status is attributed, since it is based upon purely anatomical, as against functional, considerations. From a functional standpoint, the mouth is, of course, only the gateway to the stomach; and, in conformity with this fact, Olivia's anorexia was a gastric, rather than an oral, phenomenon. It would, therefore, be more in keeping with the economy of the body to speak of an 'alimentary' rather than an 'oral' zone. On the same principle, the rectum and, for that matter, the colon are more deeply involved than the anus in 'anal' retentiveness or the reverse; and it would thus be more appropriate to describe the so-called 'anal' zone as 'defaecatory'. Similar considerations apply where so-called 'urethral' sexuality is concerned, as may be illustrated from the case of Ivy. During quite a considerable period of her childhood Ivy suffered from pronounced frequency of micturition; and during the course of analysis this symptom was to some extent revived, particularly in relation to the analytical situation. Thus for a time she frequently experienced an urgent desire to micturate during analytical sessions. This desire was, of course, a phenomenon of excitement, and thus provided the material for conflict between a desire to go to the lavatory on my premises and anxiety over the urgent call to do so. On one occasion, under the influence of the former desire, she drank a considerable quantity of liquid before coming to her session with a view to ensuring that she would require to go to the lavatory during the analytical hour. To her disappointment, however, no physical sensation indicative of a need to urinate arose. Undeterred by this fact, she insisted on going to the lavatory—only to find that her bladder was practically empty. On another occasion, under the influence of anxiety, she avoided drinking anything for several hours before her session in order to ensure that she would *not* require to go to the lavatory while she was with me; but the result was that she experienced the most urgent desire to micturate and, on going to the lavatory, passed vast quantities of urine.

These phenomena were obviously phenomena of renal secretion; and it is only in an artificial sense that they could be described as 'urethral'. For, considered in terms of function rather than atomistic anatomy, the urethra is only part of a system which also includes the kidneys, the ureters and the bladder; and it would therefore be more appropriate to speak of a 'urinary' rather than a 'urethral' zone, and to describe the relative form of sexuality as 'urinary' also.

After this digression I must now return to the question whether the classic erotogenic zones are not the product of a hysterical conversion-process. Having already given some indication of the manner in which it is possible for conversion to confer erotogenic status upon the 'anal zone', I shall try to indicate how the 'oral zone' may acquire erotogenic status in a similar fashion. One of my patients, whom I shall call 'Richard', became so concerned, at one point in his analysis, over the problem presented by his infant daughter that his own personal problems receded into the background; and several sessions were devoted to discussing what was to be done about her. The child was restless and sleepless, and was perpetually crying; and, as she was also failing to put on weight, Richard felt convinced that the half-cream milk-mixture with which she was being fed was too weak for her. In the light of what he told me, I endorsed his opinion; and, encouraged by my agreement, he persuaded his wife to put the child on a full-cream mixture. The result was that the child began rapidly to gain weight and to appear satisfied, if not satiated, at the end of a feed; but, very shortly after a feed, she would begin to cry and, in the intervals between crying, would suck vigorously either at her hand or at the blanket. This behaviour continued even when she was gaining as much as twelve ounces a week in weight. Richard was completely at a loss to explain this behaviour, since he only thought of the problem in terms of infant-feeding, and it was plain that the child was now adequately nourished. I therefore pointed out that the problem had now obviously ceased to be one of feeding and had become one of mothering; and I arranged for a colleague well versed in child-psychology no less than in infant-feeding to visit the home, assess the family situation and advise the mother. The observations of this colleague amply confirmed my anticipations; for she reported that the child was not being mothered at all, but was being completely rejected by her mother. The relevance of this story lies in its capacity to illustrate how an infant may be driven into an 'oral' attitude by an unsatisfying personal relationship with his mother, and an erotogenic 'oral zone' thus constituted. In the case quoted, the emotional need of the child was converted into an 'oral' need; and the truth of this fact was substantiated by a further observation on the part of my colleague to the effect that the child had reached a stage of rejecting the mother who rejected her. In other words, the child had replaced her relationship with her mother by an 'oral' state in conformity with the principle of hysterical conversion.

Stated in general terms, the condition into which Richard's child had passed was one in which she had come to substitute oral erotism for object-seeking. A similar process would seem to be involved in the establishment of a specific 'genital zone'; and it is this fact that confers upon masturbation the significance which it possesses. In illustration of this point, I shall refer again to the case of Morris. Not very long after the session which I have already mentioned, he became extremely disturbed as the result of what he regarded as a presumptuous interference with his affairs on the part of his housekeeper. This interference on her part reminded him of his mother's interference with his practice of infantile masturbation, and mobilized all the emotions associated with it. In particular, it revived his reaction to the circumcision which he underwent at the age of five, and which he interpreted as a punishment inflicted upon him at the instigation of his mother to cure him of masturbation. His original reac-

tion must have been extremely acute; for he was subsequently told by his mother that she thought she was going to 'lose' him at this time. And, in retrospect, he himself expressed the conviction that the circumcision was the most important event that had ever occurred in his life—to which he added that the event next in importance was one which powerfully reminded him of the circumcision-trauma, viz. his sustaining a mutilating wound during military service. What he found specifically traumatic about the circumcision was the actual removal of his foreskin, the significance of which may be gathered from the following comment on his part:

> The foreskin I played with was taken away....They took away the only thing that gave me pleasure. It was something I had on my own, for which I did not depend on my parents....What right has my mother to object to my touching my penis? She has neglected me; and then she objects to my seeking another refuge. I don't want to touch her any more....I get no satisfaction from her....It's the feeling that my mother has removed the thing I require, the thing I was playing with. In so doing she has castrated me. My penis was like a doll I could play with and love....What I'm wanting is for my mother to let me have my penis to myself—like a doll....I want her to leave me alone with it as something of terrific importance to me. After the circumcision the whole thing is threatened. Using my penis in marriage would be the same thing over again—having it interfered with by some one....A sexual relationship means sharing my penis with some one else; and I don't want to share it....Coming here seems to represent the same thing. I feel you're trying to get me to give up having my penis to myself; and I resent that....What I want is to have it to myself....It is something I can cope with. I just can't cope with my mother. I have this doll in mind. I can talk to it....It can be comforting and understanding. I can put words in its mouth. I can touch it anywhere and feel it will understand. But it is impossible to put my mother in that situation. I don't feel she is understanding....What I want is to become independent of her as soon as possible. It's really a case of being independent of all people.

It can thus be seen that, at an early stage in his life and long before the circumcision, Morris had made his own foreskin a substitute for his mother—and more specifically for her breast (as was shown by material which he had previously provided). This fact illustrates, incidentally, the close association, to which I have already referred, between oral and genital components in the libidinal ego of the hysteric; but it is not on this account that I have quoted Morris in the present context. It is rather to illustrate how a specific 'genital zone' comes to be established—viz. as in the case of the 'oral zone', through the substitution of autoerotism for object-seeking in conformity with the principle of hysterical conversion; and, as I have said, it is such a substitution that confers upon masturbation the significance which it possesses. In masturbation, as the case of Morris illustrates, the genital organs assume the significance of the exciting object no less than that of the libidinal ego. They would also appear capable of becoming the locus of activity on the part of the antilibidinal ego in association with the rejecting object—as, for example, in the case of impotence or frigidity, and as indeed in the 'castrated' state in general. It can thus be seen that the whole drama of the individual's relationships with his objects can come to be represented in genital autoerotism; and the emotional conflict to which masturbation so characteristically gives rise would appear to be related to this fact.

In general it would appear that, when the object-relationships of the child are unsatisfactory, libidinal charges become, so to speak, dammed up in the organic systems which provide, in varying measure, available channels for libidinal expression; and indeed the same may be said of aggressive charges also. When this happens, the organic systems in question themselves assume the functional significance of objects, and thus become themselves libidinally cathected; and such a process would appear to be involved in the establishment of isolated erotogenic zones. In infancy the appetitive system which extends from the mouth to the stomach provides a natural

focus for the operation of this process—as do the genital organs likewise at a later stage. These two systems represent, of course, instinctively determined channels for object-seeking; but the same can hardly be said of the defaecatory and urinary systems. At the same time, these latter systems are of such a nature as to readily acquire the function of channels of libidinal and aggressive expression, particularly in view of the extent to which parental figures participate in, supervise and attempt to control the child's excretory activities. The vicissitudes of childhood thus provide conditions calculated to encourage the conversion of the defaecatory and urinary systems into isolated erotogenic zones in the manner already indicated. At the same time, it must be recognized that, under appropriate conditions, any part of the body whatsoever may become the focus of the conversion-process, and so become constituted into an erotogenic zone in which the dramas of disturbed personal relationships are localized. The factors which chiefly determine the choice of an apparently arbitrary part of the body as a focus for the conversion-process would appear to be: (1) traumatic experiences involving or having relevance to the part of the body concerned, (2) considerations of symbolization, and (3) motives for deflecting or displacing the incidence of the conversion-process from one part of the body to another with a view to preserving or restoring the functions of the former.

The classic theory of erotogenic zones is, of course, bound up with the view that the original libidinal orientation of the child is inherently autoerotic, and that an alloerotic or object-seeking orientation is only acquired at a later stage in the process of development. The object-relations psychology which I have come to adopt is, of course, in complete contradiction of this view; but I have tried to show how the concept of erotogenic zones may be assimilated into the system of 'object-relations psychology' in terms of the process of hysterical conversion.

As regards the nature of hysterical states in general, I am only too well aware of the limited nature of the present study. In this study, however, I have attempted to show how the special problems presented by hysterical states may be approached from the standpoint of the psychology of object-relations and dynamic structure; and I have tried to indicate, in terms of this standpoint, some of the basic processes which appear to be involved in the development of hysterical symptoms.

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REALITY RELATIONSHIPS OF SCHIZOPHRENIC CHILDREN

By ELIZABETH NORMAN*

In this study† an attempt has been made to throw light on the thought processes of schizophrenic children, not by the analysis and interpretation of their fantasies—a field that has already been widely explored (Des Lauriers & Halpern, 1947; Despert, 1940, 1947; Klein, 1930, 1932, 1946; Mahler, 1952; Rapoport, 1942; Winnicott, 1945)—but by direct observation of their behaviour.

The subjects were twenty-five children under the age of twelve, of whom sixteen were boys (BA...BP) and nine girls (GA...GI). They were selected from an originally much larger group of psychotic children. They all showed reasonably clearcut pictures of childhood schizophrenia as described by Potter (1933), Despert (1938, 1942), Creak (1938, 1951), Bender (1942, 1947), Bradley (1941, 1947) and Bakwin (1950), or of early infantile autism (Kanner, 1943, 1949). No attempt was made to separate these two conditions. Following Kanner (1949), early infantile autism was considered as a form of schizophrenia occurring in the first years of life. The children were for the most part severely affected. Mildly schizophrenic children, or deeply withdrawn children without other schizophrenic features were not included. All of the children were withdrawn. All showed affective disturbance. Apart from this they all showed schizophrenic patterns of behaviour in speech, movement or in other fields. It is not possible to give the histories and symptom pictures. Brief data, mainly on speech and movement, given in the appendix, may point to the degree of disturbance in individual children.

The children were seen informally, in the play-rooms of child-guidance clinics, or as they went about their day-to-day activities in which I often shared. Sometimes it was possible to record interviews by psychiatrists or psychologists, which was extremely useful. The only constant formality was a notebook in which behaviour was recorded on the spot or as soon after as occupation with the child allowed. A few children were seen once or twice only, the majority far more often, and with some there were fairly regular weekly interviews over periods up to eighteen months and two years.

When the records of behaviour had been made they were sorted and all notes bearing on particular topics were put together. Thus an overall view could be had on such subjects as 'questions asked about people', 'questions about things', 'enduring obsessional interests', 'attention to colour' and very many others. This sorting of records proved very useful. However, it in no way cut out the factor of personal judgement and assessment which is inevitably present.

Two main questions were kept in mind in working with the children. The first was the nature of the so-called withdrawal—the way in which the children showed their feelings and established or failed to establish relations with other people; the second was the way in which they appeared to build up knowledge of the outside world and of themselves. It is with this latter question that this paper is concerned.

The child's relation to things

Except in cases of extreme regression these schizophrenic children did relate to their environment, both actually and through questioning; yet they often did so in a way that appeared different from that of other children.

* Clinical Psychologist, Department of Psychological Medicine, Guy's Hospital, London.

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GH had been given a doll whose head and limbs could be detached from the body. These are some of the notes on her use of it. 'She picks up the doll and begins to examine it. (This she did with very many objects whether familiar or not.) She peers at first one part and then another of her doll. Holds it within a few inches of her face then holds it normally, peering at it. She turns it round and over. Looks at it from many angles. Looks straight at it, then looks along it so as to see it fore-shortened. Touches it with the tip of her nose without noticeably sniffing. Runs her index finger repeatedly over its surface and scrapes at the surface with the very tip of her finger and the tip of her thumb. (The thumb was mobile and much used. Though somewhat uncertain and clumsy in gross body-movement, she showed the extremely accurate and delicate manipulation often present in schizophrenic children.) She pulls the clothes off her doll, peers at it again, pulls the limbs and head off and peers inside the doll's body for a long time. She begins to reassemble the doll. She puts the head on, but the limbs are too stiff for her. She grizzles and hits the doll's head. Then she picks up my hand, arranges my fingers round the doll's limb and pushes at my hand until I put the limb on for her and the doll is finally put together. (Apart from one or two rarely used words, she was quite mute at this stage. This was her usual way of getting things done for her.) With a sudden movement she now pulls my head down on to her lap and runs her finger over the back of my neck at the place where there would be a joint if I were constructed on the same model as the doll. She takes my head in her two hands and pulls it firmly away from the shoulders. It doesn't come off and she hits it as she hit the doll's head—not very hard. She takes my arm in her hands and tugs it firmly and repeatedly, as though to pull it away from the body. She does the same with my other arm and then with each leg. Returns to the doll and continues to handle it, finally putting the clothes on it. She does not nurse or fondle it in any way.'

Apart from some aggression, there was very little open affect shown in this behaviour but considerable inquiry and exploration and one quite systematic experiment. The child appeared to be seeking knowledge and seeking it with a good deal of thoroughness. In examining the doll she used vision, finger and thumb movement and touch, touching with her nose and possibly smelling. This was quite ordinary behaviour with her. The toys that were brought to her or that she possessed herself got the same scrutiny week after week. Sometimes she added further techniques of exploring. She would scrape with her nails at the surface of objects, removing all that she could of the surface or outer covering and then peer at them. She would thus scrape gently the surface of people's lips and nails. Often she touched things with the tip of her nose and sometimes sniffed them. She brought objects to her lips or bent over or squatted in order to touch immovable objects with her lips or nose. She licked toys that would not be expected to have taste. Sometimes she put her tongue out and rubbed things against it. She sucked and chewed toys and other objects from time to time, put things into her mouth and swallowed inedible objects unless stopped. Sometimes she knocked things on the floor or table as if testing their hardness. She spent far and away more time in examining toys than in using them, her most usual techniques being those of running her index finger over the surfaces and contours, peering at first one part and then another or gazing at the object while she twisted it and turned it and so brought its many varying facets into view. Sometimes she looked at pictures directly, sometimes she held them horizontally almost at eye-level and looked along the paper in such a way that she must have seen the pictures greatly fore-shortened.

This child's behaviour shows a number of features that are in line with observations on others of the children, particularly perhaps on those who were more seriously ill. Such behaviour did not always show and did not occur with all the children, but it was common enough to be conspicuous. Its main aspects may be summarized.

Visual examination

BJ examined objects visually in almost exactly the same way as GH, but would add the names of the objects. For example: 'He took from

among his usual toys an ordinary wooden brick, held it in front of his face turning it round and over. Looked at it seriously from all angles and said "one wooden block".'

Fairly regularly those children who were more seriously ill would react to toys merely by picking one up, turning it and looking at the under side and putting it down, or by holding it in front of them and turning it over and over. It left the impression that they were not satisfied until they had registered each particular aspect of the object concerned and often needed to add data from other senses. Des Lauriers & Halpern (1947) describe closely similar reactions to the Rorschach cards when the child seems 'to become aware of the immediate stimulus...he turns it, looks at the back, puts it in his mouth, touches and pats it, etc.'

Attention to detail

When the little girl GH peered closely at first one part and then another of her doll she gave the impression of examining it detail by detail. She did in fact attend to very minute detail. Thus her human figure drawings showed not only eye detail and nostrils but finger and toe-nails, the tendons on the feet and hands, creases in the skin at arm and leg joints and at the back of the heels and neck and any odd scars or scratches on the person she was drawing. The details of shoes and sandals were reproduced with great accuracy. Once she drew the diagonal pattern of the weave in a white twill sheet. On another occasion she distinguished two types of joint between the horizontal and upright bars of her cot. With half the joints, painting had been done before the bars were fixed and the angles were sharp ones; with the other half, painting had been done after fixing and the angles were slightly rounded by the flow of paint. She showed this distinction with much exaggeration in her drawing. It was clearly established because she was seen to peer at the joints and make the drawing.

Other children, who had not GH's skill in drawing, showed much the same attention to detail and to very small objects. GC, a generally much retarded child, commented on the details of the reflexions in people's spectacles. Two children were reported by their teachers to have an uncanny capacity for spotting and catching small insects. BJ rolled out minute fine threads of plasticine that he played with. BO liked to play with the fine threads from string that he had unravelled. With BB, GB and GH what may be called detail-action was seen in the way that they ate. BB and GB worked rapidly through their food taking one minute scrap at a time on the tip of the spoon. GH, who ate with her fingers, would work through a portion of green peas in this way: she would pick up a pea, skin it, lick the skin, eat the skin, eat the rest of the pea and go on to the next one. She still took no longer with meals than other children. (When she had finished, she would clean each finger with small flicks of her tongue and then spit on the floor.) Some of the children drew with innumerable small strokes, but by no means all. GH drew with a bold line.

Occasionally children responded to detail to which they gave no evidence of attending—detail which would seem to have been in the margin of their field of vision. BI interpreted pictures on one page of an unfamiliar book by including phrases from the opposite printed page and explained pictures at the top of a page by phrases from the text at the foot of it, while seeming only to look at the pictures. He could not say how he reached his interpretations and tried hard to justify them from the content of the pictures. GH interrupted a steady session of drawing by running off at a tangent to pick up a grape that a child had dropped at a point so far removed from the direction in which she was looking that it was hard to believe she could have seen it. Such behaviour was not common, but very striking when it occurred.

The accuracy and realism of detail in drawings was often in striking contrast to the verisimilitude of the whole. BM drew an engine and added house windows with carefully drawn curtains. GH drew a detailed and realistic picture of her room with its furniture and fittings and the people in it. She added, just as realistically drawn, a retreating taxi

with passengers seen through the back window. Human figure drawings often showed elaborate details of head and extremities while the figure as a whole was loosely and inaccurately strung together. Such incongruities were extremely common.

Attention to colour

Colour played a very large part with those children who talked. It was not easy to estimate its importance for children who were mute. BC spent most of his time asking obsessionally for various everyday objects that he collected, specifying almost invariably the colour of the object. Many of the marked obsessional interests of BJ centred round objects whose colours were invariably named. He also spent much of his time in naming the colours of things or in misnaming them and waiting to be corrected. BO named and asked the names of colours with obsessional insistence. His dearest possessions were two scraps of material whose names were colour-names. A wide range of colour-names was used by these children, including lighter and darker shades of colour, but they were by no means always used correctly.

Often, when asked about the pictures they had painted, the children named the colours only or they began to describe content and then continued by naming colours: 'That's the sun and that's blue and that's dark green and that's light green.' One boy, BA, would switch fairly regularly from content to colour at points of major anxiety. Describing his pictures, he said: 'a dead man, just a splash of blue'; 'he died you see, that's his trouble and that's just green'. Sometimes for him colours were distorted: 'That's the end of nowhere, where everything is different colours...the sky is yellow, the people are queer.'

Attention to colour where more normal children would have attended to action and function was sometimes very clear. BI found a picture of a car and said, 'What kind of motor-car could you get? Black, could you? Green? White? You can't get a red car, can you? Grey? Grey car...I don't know what else there...you can't have a green car, can you?' When he turned next to a picture of a house, he asked, 'Could you have an orange house? A red house? A cream house?'

Sometimes colours were named by children who would otherwise speak hardly at all.

Attention to form, surface and contour

Touch was used conspicuously. Mahler, Ross & de Fries (1949) speak of a schizophrenic child learning with tactile help 'like a blind child'. The early play of BP in this series was described in the same words. 'He used to play like a blind child, without looking at the toys he was using.' GC having started on a task normally, would look away and gaze at some distant object, but continue all the time what she was doing with her hands. More often touch was used with vision in stroking and running the fingers over surfaces and contours after the manner of GH. Fairly often children were described spontaneously by the parents as loving the touch of such things as fur or silk. One child, BF, appeared to avoid touch.

Attention to surface and what was under the surface was shown in the meticulous removal of surface coverings. GH scraped away every speck of paint from a whole set of crayons, peering at the wood as she exposed it. Her reaction to any painted or paper-covered object was usually of this kind. Sometimes children showed great interest in the colour that was under a colour as they painted. BA said, as he painted one colour over another, 'I'll paint over the green...first pink, then purple, then green.' BJ tried to wash the over-painting off his picture, saying 'white off the green, white off the green'. BO over-painted his blue with black and asked where the blue had gone. He then over-painted the black and said, 'Where has the black gone? Inside, is it?' Or again, 'the red's inside and the green's outside', as he over-painted. Such behaviour was frequent with these three children.

One boy, BG, would cover the toys—people and animals—with layers of plasticine that he called masks and then peel them off to find what was underneath. BM and GH both used to spread thin layers of plasticine over the toys, but did not name them. BI questioned me on the pictures in his book clearly in terms of surface: 'What's a horse made of? Fur?...A zebra, what's a zebra made of? Wool is it?...A bear, made of fur is it?' When I asked what he was made of he suggested tentatively, 'wool', which was in fact his outer covering at the time.

Outlining of objects was done with the fingers. Five of the children (GH, GF, BE, BM and BG) also outlined things by putting them on paper and drawing round them. This was probably commoner than with normal children.

The children would stroke or tap objects or tap them against things. Sometimes they would hold them as though weighing them. Frequently they bit or mouthed them. Three of the children also blew on them.*

Mere geometric form seemed at times to be the main concern of the child. In an interview when he was little at ease BI painted one colour over another and explained simply: 'It looks like a square.' BJ, among other obsessional demands, would ask persistently for 'a square one, not a round one'. BJ also spent a great deal of his time in making sure that things were straight, in measuring and alining one thing with another until they were exactly straight and level. Obsessional sorting as to shape and size was often carried to extremes by these children, as in arranging all the books in the house or all the jars on the kitchen shelves according to their size and shape. Constructions with bricks and fences, and at times drawings, often left the impression that the child was engaged more with perseverative geometric pattern than with content or meaning—either direct or symbolic.

Attention to movement

Observation of these children confirmed the interest shown in circling and spinning found by Bender (1947) and Creak (1951). One of the commonest uses for a toy car was to watch the wheels go round as it was held in the hand or remained wedged against some stationary object with the wheels turning.

PERCEPTUAL PROPERTIES AND FUNCTION

It is very much easier to note what a child does than to gauge what is missing in his behaviour. Yet when a child manipulates things in the way that has been described here, a way that many of the children followed, dwelling, for example, on colour, form, surface or detail, one has very strongly the impression that something of importance is left out. What appears to be missing is the function and use of the object and all that is related affectively to it. The children who explored things elaborately did in fact do little with them and attended little to the total function of the objects. The child who picks up a toy car, turns it, looks at it, scrapes at the paint and runs it at most a few inches into some stationary object brings out little of the function of the car as it would occur in the normal child's play and none of the normal child's vigorous personal relationship to it. BI inquired about all the colours that a car might be: he made no reference to speed or performance, to a car as something one might drive, as to what it could do. While he was interested in outer appearance, function was entirely set aside.

Gibson (1950) has distinguished between the spatial world of colours, surfaces, textures and contours on the one hand, and on the other the world of significant 'things' to which we ordinarily attend. In many ways these children suggest that they fail to maintain their world of things. They behave as though their objects were a series of details, a collection of perceptual properties, rather than functional wholes;

* I have known one boy, apparently not psychotic, who—having lost sight and hearing—used to blow on things at a time when he was relearning them rapidly by touch. It seemed possible that he was attending to air-currents. It appears to be rare behaviour.

shapes, colours, textures rather than things. Even with the most usual objects they seem to be at pains to explore or to reinstate for themselves each particular property of the object, even to the extent of seeing it from varying distances and at varying angles.

To a large extent the behaviour of these children with objects suggests a failure in generalization with great stress on particulars—a concrete rather than conceptual way of thinking even at this perceptual level. They seem to put their objects together detail by detail and property by property, just as—without reference to a general concept—item may be matched against item in a sorting test. In the ordinary way much generalization must enter into our knowledge of things. One glance at an object can show us a hard solid thing which obviously has a back and underneath surface. There is no need to turn it and look or feel it. Nor does it matter at what exact distance we see it, or what the angle. One experience, one glance at the object, implies and covers the rest. In the schizophrenic child that has been described the integration of experience and the capacity for one part to serve for the rest seems to be reduced. He has to reinstate a large number of particular experiences of the object, in viewing it from different angles and distances, in touching and weighing it and by repeating all the experience by which objects are learned, including all the early learning through sucking, mouthing and biting. Even so, the child often seems to fail to achieve objects as such, and is left with a colour or a shape or a number of details poorly organized as a whole. As has already been said, this failure seems to be linked with lack in function and use and affective relation to the object.

It seems likely that the treatment of objects by these children exemplifies a tendency that underlies much of their behaviour in other fields, namely a tendency to attend to, and retain, and often reinstate particular experiences, together with a failure to modify them in any way, or to link them with their own needs and activities. This shows very clearly in language, in what Despert (1938, 1942) has called the dissociation between language sign and language function. The child has a large vocabulary, including rare words, learns by heart poems, songs and lists of names and numbers, but the function of language in expression and communication is still at a low level. This tendency showed very clearly among many of the present children, who reproduced what they had heard—often with phonographic accuracy—over periods of months or years without ever adapting it to their own intents and purposes. Despert has suggested that this dissociation in language possibly precedes and determines the withdrawal in the disease. The present study suggests that the peculiarity of language is but one example of a much wider disorder of thought, a disorder which shows itself equally in the treatment of material things, where each particular perceptual property of the object must be recorded and reinstated, but function and use and personal relationship to it are lacking.

It is often felt that schizophrenic children live in a world of fantasy. Many clearly do. However, the children described here—they were mainly very ill—seemed to have suffered loss both in fantasy and in reality; yet they appeared to construct or maintain reality as far as they could by their own means (cf. Klein, 1929).

These children's behaviour with things in everyday life is often in line with responses that are familiar in Rorschach tests, particularly perhaps in the tendency to dwell on the actually presented data, the naming of colour, occupation with details and general lack of integration. It is in line too with their often well-developed aesthetic interests where, perhaps most strikingly, interest in sound as music contrasts with their disinterest or failure in making use of sound in speech and communication.

The animate and inanimate world

If the schizophrenic child sometimes seems to have difficulty in establishing the nature and

reality of the inanimate things around him, his toys and belongings, his difficulty is at least as great in relation to the living world and himself. When the little girl, GH, tried to dismember me as she did her doll, she made no distinction at all between the live person and the toy. Similar failure has been fairly commonly noted, in that schizophrenic children will move others around, use people's hands as tools to get what they want, or walk over people or jump on to them as though they were part of the room or the furniture (Yakovlev, 1948).

Five children in this series, all with reduced speech, used people as tools to a greater or less extent. GH showed this behaviour in the most complete form. She would place a pencil in the adult's hand to draw for her, wrap the fingers round it, press the point on to the paper and wait expectantly. When she could not reach to scratch her own back, she lengthened her arm by the addition of an adult's hand; she attempted to use the adult's hand for masturbation in the same way. She did not only make use of hands. Faces also had mobile parts which she operated. If allowed, she would open and close people's eye-lids—gently, as one might use a somewhat delicate machine. Moreover, lips and jaws are involved in speech. Holding either the chin or lower lip, she would move the adult's jaw up and down to produce speech, sometimes bringing her own ear close to listen. If one failed, as often happened, to make the comment or give the assurance she needed, she repeated the jaw-moving until one came near it. Interviews on this basis were quite difficult to carry out.

Thus, people might be treated as though they were machines. At the same time actual mechanical contrivances held great attraction for many of the children. But the contrary tendency also showed. Inanimate things might be personified and treated as though they were alive. GF talked to the sand that slid down as she was trying to build it into a pile: 'Don't...don't fall over...don't go there...get up...oh dear oh dear oh...don't fall off.' Finally, she shrieked at it: 'Don't! I'll tell your mummy.' BG said the toys looked alive. Sometimes personification was of a more casual type that would have been normal in a much younger child. BB, a very high-brow boy of eleven, said, 'Mr Butter doesn't want to come on the knife, he doesn't want to be eaten', when the butter slipped off his knife at tea. With some children there was much more genuine confusion. BJ asked, 'Has a plate got a skin?' and when a child cried he asked if it was broken. The child reported by Tramer made no distinction between his own shadow or reflexion and real children (Tramer, 1934). He expected children to behave like his shadow.

The body-image*

Whether in dealing with human beings or with things, there appears to be lack of discrimination between what is alive and what is not, and it might be expected that disturbance would also show in the organization of the child's own body experience. Indeed most workers have been led through one route or another to the conclusion that the body-image is at fault. Briefly, the evidence from the present study may be put together, particularly in so far as it supplements what has already been found by others.

In a few instances there was quite direct evidence of a child treating a part of his own body or his own activity as quite foreign to himself.

As GH was being dried after her bath, she picked up a foot with her hands and offered it to me to dry, just as she might have offered me a toy or other object. When I had dried it, she picked up and offered the other foot. More conclusive is the following, also from GH. She began to make a drawing of the sleeve and frilled cuff of

* The term 'body image' has been retained as it has already been very widely used, although either 'body percept' or 'body schema' probably conveys more readily the essential idea, which is that of the organization of the experience of the body rather than an image in the strict sense.

a child's nightdress that happened to be beside her. She stopped and pulled the sleeve on over her hand. She peered at the hand as it came through the cuff, then with the other hand she turned her own hand over, back and forth, just as she might have operated the hand of a lay figure (or of another human being!). She gazed at the hand, ran her finger over the skin and then over the skin of the elbow. It would seem that, when one hand became the object of visual attention, she treated it as part of the external visual world and that the integration of her own body-experience was inadequate to prevent this. The hand as a felt part of her own body to be moved by its own muscles gave way before the experience of the hand as a seen object in the external world and lost its function as part of the self.

BN treated his own speech and the consequences of his own actions as quite unrelated to himself. With this child it was things heard rather than things seen which lost their self-reference and became part of the external world. He said of a toy. 'It's a big soldier' and then added at once, 'I heard someone say "it's a big soldier"', denying entirely that he had said it himself. He attributed the noises he made by squeaking his doll and turning the gas-fire out to a car outside and a little man behind the fire.

There was a great deal of less direct evidence of failure to establish the self in the normal way. The tendency, noted by nearly all observers, to speak of themselves in the second or third person—'as though the child was someone else'—was shown by eight of the children in the series (BC, BF, BH, BJ, BM, BO, GB and GD). They referred to themselves as 'you' or 'he', used their own names or some stock phrase such as 'this child' or 'his lordship'. That such usage genuinely involved lack of personal participation and was not merely a lingering immaturity of language was suggested by the fact that the children would also at times go out of their way to avoid a statement in the first person by the use of passive tense constructions which are not a feature of immature speech. Thus BM wrapped up a toy and said, 'this has been put in paper'. Again, 'a letter is going to be posted'. When he was refusing to carry his toys himself he said, 'They don't held...they don't want to have been held.' In this child speech was a great deal reduced, yet he attempted a difficult grammatical construction rather than make a simple statement in the first person.

Play and drawing were often highly suggestive of body-image disturbance. Human figure drawings were sometimes fairly normal, but often they showed those features which have been described in other schizophrenic children, omission, distortion, disproportion or multiplication of parts, failure to link parts as a whole or to confine the features within the outline (Des Lauriers & Halpern, 1947; Bender & Keeler, 1952). It is not suggested that these characteristics are limited to schizophrenics, but they would seem strongly suggestive of body-image disorder. With the children who were still able to play fairly freely, besides the anxiety themes that they shared with more normal children, themes of gross mutilation and destruction or general bodily disintegration were to the fore. There was possibly more emphasis on loss of, or damage to, the head than would be found in neurotic children. Change into what was queer, bizarre or different occurred. There might be composite creatures made up of animal and human forms or mixed animal features or the human form itself might be distorted in play. BA said, 'he's not dead, but he's not the same any more...his arm's growing out of his head'.

Dwelling on death, as distinct from active killing, was common—almost certainly commoner than with other disturbed children. GF put the dolls that she ordinarily played with into coffins because they were dead. BG frequently drew people who were dead. BA mainly interpreted his pictures as people who were dead. He and GB both painted pictures of themselves dead, BA failing entirely, in spite of persuasion and effort on his part, to paint himself alive. To be unborn was not to be alive. BI, who frequently projected his fantasies of himself on to me, used to lie on the floor in a corner of the room carry out stereotyped pointing movements towards me and jeer: 'Mrs N.! She can't talk...she isn't

born...she isn't alive.' Under no circumstances was it possible that I could grow up. Three children openly stated the belief that they were different from other people, one adding: 'it's all in my head.' This concern with lack of life, being different or strange and the accomplished fact of death suggest the feeling of lack and deadness in the child himself, something of a different order from the aggression which leads the ordinary child to his innumerable active killings. The idea of death is openly linked with themselves in some of the children.

Identification with their own sex was often poorly maintained, as was the sex of others. The actual sex of a person easily gave way, as when BI said to me, 'take that grinning off your face, my lad', or BG asked, 'did you have these toys when you were a boy?' Sometimes the children seemed to be trying to maintain their own sex-stability. GF, at a time when she was showing much improvement, smacked her doll for saying she was a boy and told her: 'You're a girl, not a boy.' This child often confused 'he' and 'she' as did also GG. BJ announced one day 'BJ doesn't be a girl. He always be a boy. I always be a boy'—throughout referring to himself. GF and GH both objected strongly to wearing girl's clothes.

That failure in body-image organization was associated with failure in orientation was suggested strongly, although the children in this group showed probably less of the rotation and whirling movement than did those studied by Bender. A strikingly large number of drawings, both of people and other things, were made upside down, at right-angles or at any angle to the conventional one. Sometimes a particular figure only was reversed. GH drew a child sitting in the bath and the adult beside the bath was drawn upside down. When BA drew himself as dead the figure had no feet and was upside down in relation to the rest of the picture. Falling head first downwards was often associated with killing, castration and disintegration in the play of BG. He also drew dead animals on their backs with their feet in the air. Over a long period GH would hang the toy cars pointing downwards from the edge of the table and watch with great interest. In one game she tried persistently to make the human-figure toys hang by their feet from a horizontal string, as though upside down on a tight-rope. GF played an almost identical game and also laid great stress on the vertical orientation of her dolls. She persistently turned them head over heels or stood them on their heads, showing anxiety and distress. Thus: 'She turned her doll head over heels, shook it and squeezed its head. Stood it on its head and said, "Good baby, stand up. Stand up dear. Don't fall over...".' Three months later she was still playing in the same way. 'She held the doll (which bore her own name) head downwards and shook it. Became very tense, bit the doll's leg and said "Don't go upside down. I'll pull your head off if you don't stop it".' BJ, who over years had shown persistent anxiety over loss or damage to his own head, said of himself: 'He wants to walk on his head...I can't walk on my head...he mustn't be silly...he wants to get sick.'

Thus, besides the disorientation associated with whirling and spinning movements that has been made clear by Bender, these children seemed to stress the failure of the normal upright position and to link it with death and their own illness.

Attempts to maintain the body-image

Often the most impressive evidence of failure in the experience of themselves came from what appeared to be attempts on the part of the children to maintain or restore their identity. In part they followed the ways of normal children in identifying with dolls and toys, though they attempted it far more literally. Thus, GE and GF both named their dolls with their own names, GE using her own christian and surname.

GH not only fed her doll whenever she fed herself; she also burst into tears and then transferred tears with her finger-tips from each of her eyes to the eyes of her doll. She would arrange

a doll with its limbs in a particular position, look at it carefully and then take up the same position herself. Sometimes she went to great pains to make the anatomy of her doll and her own match up. On one occasion she succeeded in forcing two crayons down through the hollow leg of her rubber doll so that the points formed bumps at the ankle. When she had done this she ran her fingers over them and then over her own ankles, took my hand and ran my fingers over her ankles and then over her toes, leg and knee. At the same time she moved my jaw with her hand until I had named each part and named it as a good part of herself.

Sometimes the children seemed to be maintaining their sense of identity by the help of small objects that they carried around with them, clutched in the palms of their hands. Five of the children (BD, BJ, BO, BP and GA) did this regularly. With BJ the habit was known to have been continuous from the age of about two. The objects carried included small toys, such as soldiers or a small torch, pieces of paper and other materials and occasionally some piece of food. These treasures were usually carried all day, transferred sometimes from hand to hand and taken to bed at night. When they disintegrated or were lost there was great distress. Eventually a substitute would be found. These objects clearly formed concrete links with people, with objects or part-objects of the outside world; but they also fairly clearly represented the child to the child. Two of the children (GA and BJ) named them with their own names. BJ complained bitterly, 'BJ is lost', when his treasure of the moment had been seized and removed by another child. The unsatisfactory nature of these identifications for the schizophrenic children, whose thought tends to be concrete, rigid and absolute, is often very clear. For these treasures do fall to pieces, do get lost and broken and these disasters are just what the children fear for themselves or appear to believe to have happened. Nonetheless, these objects seem to be retained in the attempt, not only to make contact with what is outside, but to maintain the identity of the child himself. They are possibly the concrete equivalents of the imaginary companions who accompany many normal children through their early years.

The choice of this particular form of behaviour by schizophrenic children may well be associated with the sensitivity and skill in finger movement which many of them show. It would seem reasonable that they should make use of the hand, which is highly developed, in their attempts to maintain their own identity. Actual stimulation of the skin by the object probably plays its part. Two of the children (BA and BM), who did not carry other things, clutched their own thumbs against their palms with much the same action. Finger-flipping and other finger play was very common.

Some of the children appeared to use drawing to help to establish their own identity. They drew pictures of themselves—as normal children also do. Probably more often than among normal children their hands and arms were outlined by placing them on paper and drawing round them. BE, BG, BM and GH all did this. BM carried the technique further when he outlined his own foot in chalk on the sole of his shoe.

GH drew herself still more literally and completely. Thus, she outlined and reddened her lips with red crayon. She then outlined her eyes with blue crayon. She was thought to be making-up as she sometimes did. However, she now chose a brown crayon, closed her eyes and made a brown dot on the centre of each eye-lid. There seemed little doubt that she was drawing her face on her face, including the pupils of her eyes. On another occasion she was left in bed for a rest and was found a little later sitting up naked with a brown chalk outline to her trunk, arms, hands, shoulders, neck and the sides of her face. The chalk could not be seen over her hair but otherwise the outline of a full-face figure was complete from the waist up. This child drew everything around her. To draw herself and to locate the drawing correctly on her own body would seem to be a way of bringing drawing, her main talent, directly to bear on the establishment of her own body-image.

It was possible to watch with GH a process that seemed to be one of learning the bodies of other people and of herself. It began after I had known her for some four months, at a time when she used to insist that I should draw for her. In an attempt to give some expression to a human relationship in her own terms, I often used to draw her with myself beside her and the people around us in the room. This she seemed to like very much. On one occasion, when I was doing this as usual, she suddenly looked me full in the face as though recognizing me—a very rare thing with her—and burst into a torrent of inarticulate babble like that of a year-old child. This was surprising. Apart from two words and an occasional grizzle, she had so far been not only mute but entirely silent during the time that I had known her. The babbling was followed straight away by her first exploration of me, an exploration that was extremely detailed and thorough and was continued in almost all the weekly interviews over a period of many months. She followed much the same method that she used in examining inanimate things. She would lift one's hand, for example, hold it away from her and look at it, hold it close to her face and peer at it. She would explore any unusual scar or scratch minutely with her finger-tip and sometimes then examine the corresponding point on the other hand, as though scars were duplicated in the two hands. With her fingers she traced out the forms of bones and tendons and followed the paths of wrinkles. She pinched up and pulled at skin as though to see how far it could be stretched, peered under finger-nails and into eyes, nostrils and mouth. At first she attended only to the more accessible parts of the body; then she appeared to accept the fact that the body is continuous under the clothes and would have undressed anyone who allowed her. At the same time she became interested in the bodies of other children and a menace to the small boys who were her companions.

At no time did she examine her own body as fully as she examined others but, more sketchily, she treated it in the same way and clearly made comparisons. The following notes illustrate this.

'Gently pressed my eye-lids shut with her fingers. Then pressed her own lids shut with her fingers.'

'Stroked her fingers down my arm, following the bone. Stroked her own arm in the same way.'

'Found a scratch on my arm and sought until she found a scratch on hers.'

'Traced over the surface of my lips with her finger and then did the same to her own lips.'

'Moved my jaw up and down with her hand. Moved her own jaw up and down with her hand and then continued to move it, using the jaw-muscles.'

One day when she again began to babble I joined in and showed her that she could feel my larynx vibrating and could feel her own. This seemed to give her great pleasure. For months following this she would from time to time throw her head back, babble, finger her neck and laugh.

Mirrors were valued greatly by this child, as by a number of others in the series. She would peer into them with great excitement, gesticulate, grimace, contort her face by pulling at the lips and eye-lids or open her mouth wide and peer inside it. In the following notes it will be seen that the child makes use of mirror images as well as surface exploration.

'Holds her hand in front of the mirror. Looks at the reflexion and pinches the real hand.'

'Makes gargling noises and labial and dental speech sounds, looking in the hand-mirror and feeling her lips, back and front of her neck and lower part of her face with her fingers. Peers down her throat in the mirror and laughs. Makes open vowel-sounds, looking in the mirror. Puts the mirror inside her clothes so that she can squint down and see more of her body reflected in it.'

'Looks in the hand-mirror saying "ooh-ah" over and over very loudly, feeling her larynx with her fingers. Climbs on to the table, makes noises into the mirror and moves my chin until I accompany her. Looks at me—"in touch" and not withdrawn—and begins to climb around on the furniture with an agility that is quite new.'

At this stage the child was still not talking. She began, very soon after, to acquire a small vocabulary which she used sparingly.

The notes quoted are taken from a number of similar observations on this child. They point fairly clearly to the conclusion that the child was attempting to establish her knowledge of herself by vision and body surface exploration and by direct comparison with others in these fields. When visual and

cutaneous knowledge could be combined with the child's own activity, as in gesticulating before a mirror or feeling with her fingers that she was vocalizing then there was obvious release of pleasure and often marked excitement. She made vigorous attempts to know something of the inside of the body by vision—her own by peering into her mouth and throat in the mirror, those of others by opening people's mouths when they were near her and gazing inside. She also peered under eyelids and into nostrils.

One could scarcely watch this child's behaviour without the impression that she was by-passing or compensating for some handicap under which she suffered in just the same way as children compensate for a sensory or motor handicap by making greater use of the capacities that are intact. In this case there was no sensory loss in the ordinary sense; what appeared lacking was the inner experience of herself. She was learning herself by a mainly external approach.

Discussion of the term 'body-image'

The term body-image has been used without definition and some attempt must be made to make clear what is implied by it here.

It is assumed that the development of the body-image involves all the experiences relating to the body and that this must in some way be organized or integrated into a whole. Thus, included in the concept must be all that relates to posture, balance, movement and surface localization as in the body-schema of Head (1920). Included, too, must be the surface-schema (surface-model or body-boundary) as elaborated by Schilder (1925) with its contribution from cutaneous experience and from vision of the self. Presumably hearing, smell and taste play some part.

Of importance for the present discussion is the contribution to the body-image of all the experience deriving from the inside of the body, from the functioning of sex-organs and other viscera as well as from glandular and circulatory changes. This might be thought of as the internal body-schema; it might almost be considered as an autonomic body-schema. Clearly, such internal experience will vary with the affective condition of the individual, with erotic excitement or its lack, with anger, fear and other emotions, with hunger, satiety, effort, relaxation and so on. It might be expected to be of major importance in supplying the affective tone of the individual.

More than this, it seems quite possible that such internal body experience may play an essential part in maintaining the sense of unity, cohesion and continuity of the individual, as well as contributing to affective tone; for it is a body of experience that must always be present during waking, even if little attended to; it is relatively independent of the fluctuations of the external environment and so likely to lead to knowledge of the individual as distinct from the environment; when change takes place in it, as in the development of an affective state, the change is widely distributed throughout the body and might be expected to contribute to the experience of the body as a unit, as a whole.

If the body-image is to develop normally, not only must experience from all fields be available, but it must be organized and integrated into a whole. The child's feelings—his hunger, for example, or anger, or the glow of affection—must be linked with himself as a moving, active person and with himself as something tangible and at least partly visible, i.e. with the body-boundary. Unless, or until this takes place there would exist a condition where an affective experience might link more closely with the experience of an outside object than with other fields of experience of the child's own body. It seems possible that such a condition holds in early infancy: that the child's experience, for example, of the external breast and his experience of suckling and the inner changes that go with it may form a unity that precedes the integration of his own individuality as a unity of inner experience, action and body-boundary. Fantasies relating back to such a stage would take on the character of projection or introjection when, and only

when, the body-boundary came to be established as dividing off what is inside the child from what is outside; but they would owe their great importance to the fact of relating to a stage before its establishment, a stage when feeling and object were more closely linked than feeling and the boundary of the body. Only when some integration of the body-image had taken place would the child tend to confine his feeling to himself and recognize his objects as external and distinct from him. With failure in the development of such integration one would expect a relationship to objects, with impoverishment of the ego, of the kind described by Klein as projective identification (Klein, 1946).

That the body-image is very largely developed through a process of integration of the various contributing fields of experience is often clear. Learning can be seen to enter in. A kitten trying to catch its tail or a baby trying to catch its toes show the early failure of integration of visual and motor schemata, a failure that is gradually overcome. It is much less easy to see how integration is achieved of internal and affective experience with body posture, shape and surface, to understand how internal experience is localized with the body (Winnicott, 1945). Apart from the referred localization of visceral pain, little seems to be known. However, failures in such integration are abundant and striking, ranging from the patients who feel that their emotions flood the world to those who feel themselves hollow, two-dimensional, eviscerated or, like Schilder's patient, feel the body to be held together loosely and inadequately merely by the skin (Schilder, 1925).

Among the schizophrenic children there appears to be failure of integration of the various fields of experience that go to form the body-image with, possibly, actual weakness or defect in their own internal experience. Thus they fail to integrate their visual, postural and vestibular experience in such a way as to achieve a steady upright orientation in a stable world. There appears to be failure in the contribution of internal experience to the body-image, in that they feel themselves to be dead or disintegrated. They even move parts of their bodies about with their hands as though they were foreign and lifeless, as though they formed part of the external world rather than part of the unity of the felt and active individual. On the occasions where affect is shown, it is not limited to the child himself, but is attributed freely to the objects outside him. Failing to relate and limit their own sense of animation to themselves, discrimination between the animate and inanimate seems hardly open to the children and they make little distinction in this respect.

In spite of the difficulties they are under, the children none the less seem clearly to attempt to build up knowledge both of themselves and of the outside world. They make efforts to know themselves by the means available to them—the means of external rather than internal perception. They may be seen building up their own body-knowledge by touch and sight and mirror-images, by outlining and drawing their bodies, by working out comparisons with dolls and other people that they can examine or by having always with them some object representing themselves that they can see and handle. As there is failure in the integration of their own bodily experience, so, too, there is failure in the integration, the unity and function of external objects. But here, too, the children seem to try to make good the loss. They do not abandon their interest in the object altogether. They attempt to construct it detail by detail and property by property, with great stress on surface properties, in a way that runs closely parallel with their attempts to restore the personal body-image.

Further pursuit of the failure in integration in the body-self and in the outside object can only be of a speculative kind. One may guess at the importance of the often remarkable retentivity of these children, their phonographic and photographic memories, by means of which things experienced seldom or once only—the rare word or casually

overheard conversation—are preserved almost indefinitely as impressions which 'just do not fade' (cf. Kanner, 1946, 1951). Such retentivity and lack of fading of non-repeated experience might be expected to stand in the way of normal learning, and of the normal build up of the self and the outside world in so far as these are learned. If impressions that constantly and repeatedly fall together help towards learning, this can only be so provided that the many other non-repeated accidental impressions fade out. If such fading failed, or tended to fail, one would expect difficulty in learning the object as distinct from its non-repeating, accidental background: in learning the constant and essential features of the object as distinct from any one of its particular appearances and in building up the organized body-image as a unity distinct from the more transient impressions of the outside world, including the impressions of other people. Such difficulties are largely found among schizophrenic children and it may perhaps be that perseveration—the lack of fading of impressions—plays its part not only in their concrete and particular and obsessive ways of thought but also in the failure in the integration of objects and of themselves, which leaves them handicapped in the real world and comparatively helpless in the world of their own fantasy.

Summary

Observations were recorded of twenty-five schizophrenic children during play interviews and day-to-day activities.

A type of behaviour with objects is described, common to many of the children, in which attention is given to the perceptual properties of the object rather than to its function and use.

Failure in body-image organization is indicated and the attempts made to overcome such failure are described.

Failure in the body image is related to the behaviour with objects.

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Appendix

Name	Age when observed	Other data (exclusive of signs of withdrawal and disturbance of affect which were common to all the children)
Boys		
BA	8–10	Broken and neologistic speech. Stiff walk. Bizarre ideas
BB	11	Fluent speech with perseveration and neologisms. Choreo-athetoid movements of hands and arhythmic walk. Bizarre ideas
BC	7	Echolallia and flat speech. Movement fairly normal. Behaviour reduced to limited compulsions and stereotyped questioning.
BD	5	Mute. Obsessional ordering with interest in mechanical things. Movement fairly normal. Formerly hallucinated
BE	6	Speech limited with much jargon and echoing. Stereotyped movements of hands. Walk normal
BF	8	Speech limited with much jargon. Elaborate rituals. Probably hallucinated at times

Name	Age when observed	Other data (exclusive of signs of withdrawal and disturbance of affect which were common to all the children)
Boys		
BG	10	Speech clear in play, otherwise showing jargon and incoherence. Stiff walk occasional. Grimacing and bizarre ideas
BH	7–8	Mute except for an occasional word. Responds to singing and sings well. Stiff walk and stereotyped movements.
BI	9	Speech fluent with use and misuse of rare words. Choreo-athetoid movements of hands and arms. Arhythmic walk at times
BJ	9–11	Speech fluent with echoing, jargon and neologisms. Formerly choreo-athetoid movements of hands and arms and arhythmic walk, largely improved. Bizarre ideas. Rigidly maintained obsessional behaviour
BK	11	Mute with good understanding of speech. Stereotyped movements. Extreme withdrawal, tending to scream if approached
BL	10	Mute except for an occasional word. Movement fairly normal. Some bizarre behaviour
BM	9–10	Speech limited with neologisms and much jargon. Movement fairly normal. Hallucinated at times
BN	7	Speech fluent. Movement normal. Bizarre ideas and at times hallucinated
BO	4	Speech fairly fluent, almost entirely in the form of questioning. Stereotyped movements of hands. Walk normal. Rigidly maintained obsessions
BP	6	Speech reduced to vowel sounds only. Stereotyped movements. Rigid obsessional interests
Girls		
GA	9	Speech includes neologisms but fluent. Stereotyped movements. Bizarre ideas. Probably hallucinated
GB	11	Speech fluent with large vocabulary and neologisms. Formerly more disturbance in movement, now only stiff walk. Bizarre ideas and obsessional ordering
GC	7	Speech fluent with echoing, jargon and neologisms. Bizarre ideas and limited interests. Movement normal
GD	7	Speech fluent with interjected cough and perseverative distortion. Choreo-athetoid movements of hands and arms with bowing. Walk stiff but improving. Echopraxia with children. Enduring obsessional interests
GE	6–8	Mute except at home and in C.G. clinic, where she talked after five months silence. Stiff walk at times. Marked echopraxia
GF	6–7	Mute except at home and in C.G. clinic after considerable treatment. Stiff walk and stance
GG	8	Speech fluent with neologisms and much jargon. Almost solely occupied with bizarre ideas and fantasies
GH	5–7	Mute except for an occasional word, used very rarely, during the greater part of the observation period. Finally began to acquire a small vocabulary. Choreo-athetoid movements of hands and arms with bowing. Stiff walk improving
GI	5	Mute for the past two years. Stereotyped movements. Extremely inactive.

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STUDIES IN PSYCHOPATHOLOGY USING A SELF-ASSESSMENT INVENTORY

I. THE DEVELOPMENT AND CONSTRUCTION OF THE INVENTORY

By JOSEPH SANDLER*

Introduction

The psychiatric inventory described here (to be known as the Tavistock Self-assessment Inventory) is one which has been developed over the past few years in the Tavistock Clinic, London, and is now given as a routine to all new cases seen in the Adult Department, before they have their psychiatric interview. Although this inventory is not yet in its final form, it has been thought worth while to present a short account of the development and use of the test, not only in the clinical situation but also in its application to problems of psychopathological research.

The widespread use of personality tests in psychological clinics is an indication of the need which is felt for some form of objective assessment of personality. Such an assessment is of value not only in diagnosis but in the prediction of the course and outcome of therapy. Again, research into the effectiveness of various therapeutic procedures depends on the availability of objective, valid and clinically meaningful methods of assessment. However, the principal projective techniques, while often giving a great deal of information about unconscious forces in the personality, do not always reflect the clinically important features; nor (and this applies especially to the Rorschach test as it is generally used) are the theoretical concepts employed in these procedures always capable of being related to the clinical situation, or to the patient's observed behaviour. Existing personality inventories suffer the same drawbacks and are even more remote from the reality of clinical work. Purely subjective ratings are on the whole too crude, and the extent of the disagreement between different workers is generally too great.

For some time psychiatrists and psychologists in the Tavistock Clinic have considered the possibility of using some other form of recording and assessing the patient's behaviour. The main aim was to record a sample (including his verbal behaviour) broad enough to be reliable without being unwieldy. Such a sample might indicate areas of conflict, and might serve subsequently to show changes, for example after treatment. At first it was planned to record the information by careful interviewing and observation, mainly by psychologists and psychiatric social workers, but this proved difficult on account of the time taken, and because the securing of the necessary information inevitably complicated the relationship of the patient to his therapist. It was therefore decided to limit the systematic observations, for the time being, to a well-defined and structured situation, in which the patient recorded his responses to a large number of items, brought together in a 'self-assessment' inventory. The responses to this inventory might provide an objective and quantitative record which could be used for purposes of research, and which would be capable of interpretation by a clinician in terms of his own theoretical standpoint.

It is clear that such an inventory stands or falls on the *content* of the items, which must yield information, directly or indirectly, which is clinically relevant. The following guiding principles were adopted in the choice of items:

(i) On the basis of Clinic experience with adult psychoneurotic patients, and from a

* Research Psychologist, Adult Department, Tavistock Clinic.

study of the literature (including existing inventories), several hundred statements were collected, each of which refers to a relatively simple feeling, attitude, or concrete piece of behaviour. In particular, attention has been paid to those items which are known to be important in patients suffering from psychosomatic and 'stress' diseases, where the psychogenic factors are not immediately apparent. All the items refer to material which, if brought forth spontaneously in an interview, might be utilized by the clinician in his assessment of the total picture of the personality structure and illness of the patient.

Not only have neurotic symptoms and 'pathological' items been included. A great many items refer to character traits which fall within normal limits, for the relatively gross symptomatic picture cannot be dissociated from the total personality in making a clinical assessment.

In constructing the inventory, an attempt has been made to cover a great many areas of personality and behaviour. The reasons for this are, first, that the responses to the inventory should not only give a general picture of the patient's personality and illness, but should also reveal more specific and limited psychological disturbances which might otherwise be missed. Secondly, it is planned to use the inventory to discover psychological differences existing between contrasting clinical groups, and to test hypotheses about the degree to which particular personality 'types' are associated with particular illnesses. For this purpose it is necessary to cover as wide a field as possible.

It should be stressed that, as in an interview, the content of the patient's statements cannot always be taken at face value. Unconscious tendencies can only reveal themselves by indirect means, and must be inferred from the total pattern of responses, and the discrepancies within that pattern. Thus, for instance, a patient who repeatedly denies aggressive feelings may be defending himself against the anxiety which would be aroused by the conscious emergence of these feelings. Just as this can be seen in an interview, it might be apparent in the patient's responses to the inventory.

(ii) The fact that all the statements refer to the kind of material which may be produced spontaneously by the neurotic patient, irrespective of the theoretical orientation of the interviewer, means that such an inventory is not confined to a particular theoretical framework. Moreover, because it deals with actual difficulties and attitudes, the responses to it are directly usable by the psychiatrist. This may make the inventory a valuable clinical instrument as well as a research technique. One of the major practical problems confronting psychiatrists working in out-patient clinics is that the length and scope of the clinical interview are often limited, because of the large number of patients seeking help. The urgent need to utilize the time available for treatment most economically makes it necessary to exploit fully any technique which adds to the amount of clinically relevant information at the disposal of the therapist.

(iii) The collection of a large number of items referring to particular clinical 'themes' (e.g. obsessional behaviour) makes possible the later development of psychological 'scales' which may provide a basis for the quantitative assessment of certain conditions, and for the comparison by statistical methods of different clinical groups. Further study will enable unnecessary items to be eliminated.

(iv) In the clinical setting, it is very important to show the patient how the inventory is related to his attendance at the clinic and to his motives for attending. What anyone tells of his private world is governed by the nature of the relationship between himself and the interviewer. It is most desirable that the patient answering the inventory should perceive its link with his wish to get treatment. It was decided therefore not only to make it explicit to the patient that the inventory would be useful to the doctor, but also to administer it close to the time of his first consultation.

Finally, although the inventory has been designed primarily for research and clinical use with neurotic patients, it has been found possible to apply it, with satisfactory results, to intelligent non-neurotic subjects, provided that they undertake it voluntarily and that anonymity is guaranteed.

The test

The 876 items of the inventory have been printed in six booklets, 150 items in each of five books, and 126 in the sixth. There are fifteen items to the page, and the items are numbered consecutively in each booklet.

For convenience in administration, and in order to break the monotony of the task, each booklet is printed on paper of a different colour, and there is a corresponding answer sheet of the same colour. On each answer sheet, against the number of the item, are the letters T (True) and F (False). In addition, there is a blank space in which the patient may enter a question mark to indicate doubt about the answer he has given—a qualification that obsessional or anxious patients often prefer to the more categorical statement. The test is given as a group test to the small group of patients who are about to have their initial consultation, and the following points are made by the tester:

(1) Before we can fully understand the difficulties which have brought you here, we need to see them against their proper background—your experiences in life and your feelings about them.

(2) You will want to spend your time in the consultation with your doctor dealing with your immediate, pressing, problems. On this account we have brought you together in a group, in order that you may record the background information, which you might not think of mentioning, yet which would be of great value to your doctor.

(3) We have tried to make the procedure quicker and easier by preparing a large number of statements beforehand; statements which in our experience refer to things which it is important to know.

(4) These statements have been set out in six booklets.

The tester then goes over the instructions printed on the first page of each booklet (see Appendix).

The order in which the booklets are presented is systematically varied (there are 720 possible orders). One result of this procedure is that a few sets of booklets will cover a relatively large group of patients; only a small number of patients will be attempting each book at any one time; and to some extent, the influence of the relative position of each item will be removed when the results are treated statistically. The items in the inventory have been randomized, so that each booklet should be of some value on its own.

The maximum time which has been available for the test is 2½ hours, but most patients who complete the test do so in a considerably shorter time. Of the first 222 patients given the test:

191 (86·0 %) completed all six booklets
14 (6·3 %) completed five booklets
9 (4·1 %) completed four booklets
6 (2·7 %) completed three booklets
2 (0·9 %) completed two booklets

All patients completed at least two booklets.

An interim report sheet has been devised, on which every item of the inventory has been printed in full. Against each item is printed T F ? so that it is possible to record the way in which the patient has responded to that particular item. The convention has been adopted that no mark against an item indicates a response of 'False'. It is then possible to read through the responses and to make an assessment, on the basis of clinical experience, of the patient's personality and illness.

Contrary to expectation, the majority of patients find it neither dull nor irksome to work through such a large number of items. The fact that 86 % of these neurotically disturbed patients finish all six booklets is in

itself impressive. As far as can be gathered, the reasons for this are, first, that the task is presented in a therapeutic setting, and its accomplishment is for the patient a step towards receiving the help he wants. Secondly, the relevance of the items is usually apparent to the patient.*

A number of patients have volunteered the comment that they felt some relief of tension after doing the test. Discussion with some of these patients has suggested that this is due to a lessening of guilt-feelings about characteristics which they had thought peculiar to themselves. Unfavourable reactions to the test have been very few indeed.

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* A recent investigation with the test has shown that it can be applied quite satisfactorily to out-patients attending for general medical treatment. A number of patients suffering from indigestion were invited by letter, and about one-third (sixty-six cases) agreed to do the test. Of these, sixty-one (92 %) completed the test. In this study each patient was given a code number to put on his answer sheets. It was explained that the responses would be linked with the medical notes, but that the information would be confidential, and the patient's identity would not be revealed by the investigators. The results indicate that strict anonymity is not always a necessary condition for co-operation.

APPENDIX

The instructions printed on the first page of each booklet are given below. Copies of the report sheet, which lists the items in full, may be had on request from the Tavistock Clinic. A representative sample of the items used may be found in a separate study (Sandler & Pollock, 1954).

Self-assessment

On the following pages there are a large number of statements which relate to different aspects of you as a person. You are asked to say whether each one is *true*, or on the whole, true, as applied to you; or whether it is *false*, or on the whole, false, in relation to yourself.

On the answer sheet—of the *same* colour as these pages—underline T for True, or F for False, alongside the number of the statement you are answering. (Do not encircle or cross out either T or F but only *underline* the appropriate answer.) The numbers on the answer sheet refer to the statements in the printed booklet.

You will notice that there is an empty space to the right of T and F on the answer sheet. If you have difficulty or great doubt about your answer, put a question mark in this empty block, but in each case you must underline T or F as well, whichever is the more appropriate. The question mark, if you should need to use it, is a sign of some strong doubt about the answer you have given.

Please do not mark or write on the printed booklets—they have to be used again.

If you have any queries, please ask the person who has given you the booklets and answer sheets. If you make a mistake please alter your answer *clearly*.

Finally, do not let the way you have answered any one statement influence the way you answer any other—judge each one separately on its merits.

Your answers are strictly confidential.

REFERENCE

SANDLER, JOSEPH & POLLOCK, ALEX. B. (1954). Studies in psychopathology using a self-assessment inventory. II. Some neurotic gastro-intestinal symptoms: functional dyspepsia in men. *Brit. J. Med. Psychol.* **27**, 146.

STUDIES IN PSYCHOPATHOLOGY USING A SELF-ASSESSMENT INVENTORY

II. SOME NEUROTIC GASTRO-INTESTINAL SYMPTOMS: FUNCTIONAL DYSPEPSIA IN MEN

By JOSEPH SANDLER* and ALEX B. POLLOCK*

A. The classification of some neurotic gastro-intestinal symptoms

Disturbances of gastro-intestinal function are perhaps the most common of those somatic symptoms which have long been believed to have a large psychogenic component. They tend to occur not only in those who are manifestly neurotic, but are widely distributed in the whole population, as every general practitioner will testify. No attempt will be made here to review the extensive literature on the subject, and readers are referred to the discussions of Dunbar (1946), Alexander (1952) or Weiss & English (1943).

The investigation reported here is an attempt to classify some of these gastro-intestinal disturbances, and to trace, as far as possible, some of the psychological features in their formation. A neurotic population of 100 cases (fifty men and fifty women) has been chosen for study, for symptom-formation may be observed more readily in neurotics seeking help than in those who are psychologically 'normal'. Such people, by virtue of their special motivation, are prepared to reveal more of themselves than they otherwise might. A further important consideration is that most patients are referred to the Clinic by their general practitioners and gross organic conditions have therefore usually been excluded.

The material upon which this study is based is composed of the responses to the Tavistock Self-Assessment Inventory, described in a previous paper (Sandler, 1954). The statistical findings are presented in some detail, so that a clear differentiation can be made between the objective results established by the techniques used, and the theoretical conclusions.

The patients varied in the degree to which they reported gastro-intestinal upsets (some having none at all). It was thus possible to trace the degree of association between gastro-intestinal symptom-patterns and other psychological material at our disposal. The actual tools and techniques used will be described later, but the fundamental assumption of the investigation can be stated as follows: if two symptoms or traits occur together more often than could be expected by chance, they may have a common aetiology. Another way of expressing this is to say that if a symptom, about which we know little, occurs in some people but not in others, then any general psychological differences between these two groups may throw light on the determinants of the symptom.

The present investigation

The subjects of this research consisted of the first fifty men and fifty women to complete the Self-Assessment inventory. This is a representative sample* of the patients referred to the Adult Department of the Clinic, the only selection involved being that of having completed the full test.

Eleven items of the Inventory refer to

* Research Psychologist and Psychologist, respectively, Tavistock Clinic.

* The mean age of the men was 32·8 years with a standard deviation of 8·5 years (range 21–54 years). The women had a mean age of 28·7 years, with a standard deviation of 6·9 years (range 18–51 years).

gastro-intestinal symptoms. These are given in Table 1, together with the frequencies of 'positive' answers for the men and women. A 'positive' answer is one which indicates that the subject has the relevant symptom, even though the item may be phrased in the negative.

Because of the fact that these items are all interrelated, and in order to reduce and classify the number of variables with which we have to deal, the present investigation has been confined to the *common factors* in the eleven items. The method which has been adopted is that of *factor analysis*, a purely statistical technique. The 'factors' produced by such an analysis cannot be regarded as other than arithmetical condensations of the original material, unless they also correspond to a clinically meaningful ordering of the data. The details of the factor analysis are given in the Appendix, Section 1, and it is sufficient to state here that two common factors appeared to be sufficient to account for the inter-correlations between the tests. These two common factors are clinically recognizable, and are described below.

Factor A. The items most highly saturated with this factor are, in order of magnitude:

	Saturation
4. I suffer a great deal from stomach trouble	0·75
8. I frequently have 'stomach-ache'	0·64
2. I...suffer from indigestion	0·62
1. I suffer a lot from wind or gas in my stomach	0·59
9. I sometimes have attacks of biliousness or a sick feeling in my stomach	0·54

This picture is frequently met with clinically and once organic lesions have been excluded, has been variously called 'Functional Dyspepsia' (Jones, 1949), 'Nervous Indigestion' (Alvarez, 1930), and 'Nervous Dyspepsia' (Price, 1950). For convenience, we have called factor A one of *Functional Dyspepsia.*

Factor B. The three items with the highest saturations for this factor are as follows:

	Saturation
5. I often feel pain when passing a bowel motion	0·69
7. I sometimes see blood in my bowel motion	0·57
11. I...suffer from piles (or haemorrhoids)	0·41

These items all refer to difficulty or pain in passing a bowel motion, and the factor has been labelled *Defaecatory Difficulty.* It should be stressed that it refers to actual difficulty in passing faeces, rather than to constipation,* which has a saturation of 0·30 with this factor.

The factor analysis yields a statistical ordering of the material, which in the present case corresponds with clinical experience. All that has been achieved is that two qualitative clinical pictures have been reproduced in quantitative form. It remains possible, however, to draw theoretical conclusions about these observed groupings of the material, if it is found that there are significant associations between the factors and other items of information which are psychologically meaningful in terms of a given theoretical system.

Accordingly, the correlations between the two factors and each of the remaining items of the Self-Assessment Inventory have been calculated. The way in which this was done, together with a description of the two measures of association used, is given in Section 2 of the Appendix. Correlations were calculated for men and women separately, and a great many were found to be associated with the two

* Factor A accounts for 21 %, factor B for 12 % of the total variance of the eleven items. The remaining variance is attributable to specific and error factors. It will be seen (the figures are given in Section 1 of the Appendix) that items 3 (diarrhoea) and 6 (constipation) have little of their variance accounted for by the common factors. It would seem that the 'unique' or 'specific' component in each is relatively large, and a further investigation of these two symptoms is being undertaken.

factors, some at a very high level of confidence. The significant items have been divided into three groups, corresponding to the 0·1, 1 and 5 % levels of statistical significance. These items, which show a greater-than-chance association with the two clinical patterns of gastro-intestinal disturbance, throw some light on the psychological factors involved.

Table 1

	Test item	Fifty men	Fifty women
1	I suffer a lot from wind or gas in my stomach	15	12
2	I [do not] suffer from indigestion	17	23
3	I frequently suffer from loose bowels (diarrhoea)	6	4
4	I suffer a great deal from stomach trouble	11	9
5	I often feel pain when passing a bowel motion	3	7
6	I am [seldom or never] constipated	13	24
7	I sometimes see blood in my bowel motion	3	4
8	I frequently have 'stomach-ache'	6	10
9	I sometimes have attacks of biliousness or a sick feeling in my stomach	24	32
10	I sometimes suffer from attacks of vomiting	5	10
11	I [do not] suffer from piles (or haemorrhoids)	11	12

The present report is confined to a presentation of the results obtained for factor A (functional dyspepsia) in men. The results for factor A in women, and factor B (men and women) are to be published at a later date. It is worth noting that the pattern of items significantly associated with factor B (defaecatory difficulty) is completely different from that found for factor A.

B. Psychological factors in functional dyspepsia (men)

There is a very high incidence of 'dyspeptic' symptoms in the general population. The very thorough study of Doll, Jones & Buckatzsch (1951) involved a survey of 4871 male and 1080 female workers in various occupations, and it was found that whereas 6·5 % of the men suffered from proven or presumptive peptic ulcer, a further 24·9 % complained of some other form of dyspepsia. The figures for the women were 1·7 and 27·8 %. Edwards & Copeman (1943) investigated army dyspeptics, and found that of 356 cases, 139 could be considered as suffering from peptic ulcer, while of the remaining 217 cases, 180 were considered to be suffering from functional dyspepsia, in which no organic lesion could be found.

It is clear from this, and from many other studies (e.g. Jones & Pollak, 1945; Halsted *et al.* 1946; Halsted & Weinberg, 1946) that a large group of dyspeptics exists, in which there is no demonstrable organic lesion, and which is clinically distinct from the peptic ulcer group.* Failure to make this distinction has probably contributed to the contradictions that exist in the literature on the personality of dyspeptics. Thus Alexander (1934) groups together ulcer patients and those with a 'gastric neurosis'. This has prompted Grossman (1951) to say: 'It is interesting to note that psychiatrists find that peptic ulcer patients and patients with functional dyspepsia ('gastric neurosis') manifest the same type of personality structure, whereas gastro-enterologists (e.g. Friedman, 1948; Montgomery *et al.* 1944) stress the sharp difference in the make-up of these two groups of patients.' This view is echoed by Wilbur

* The purely organic causes of dyspepsia other than duodenal ulcer are relatively infrequent. Jones & Pollak (1945) found that gall bladder disease accounted for only twenty-three of 1522 cases of dyspepsia referred to a special dietetic out-patient department.

(1951) who emphasizes the importance of the differential diagnosis between 'ulcer' and 'non-ulcer' dyspepsia.

Nevertheless, this distinction has been taken into account by a large number of investigators, and there appears to be strong evidence in favour of the existence of definite psychological differences between those suffering from these two types of dyspepsia. Montgomery *et al.* (1944) found that seventeen of twenty-two 'non-ulcer' dyspeptics had neurotic symptoms, whereas only six of twenty-three patients with duodenal ulcer had such symptoms. Halsted (1946) finds a substantial difference between 'ulcer' and 'non-ulcer' dyspeptics, only 6 % of the former, but 80 % of the latter, having neurotic symptoms. Kirk (1946) confirms this finding with army dyspeptics, and comes to the conclusion that the 'non-ulcer' dyspeptic is neurotic, but that only 10 % of ulcer cases show neurotic disturbances. Hamilton (1950) found significant differences in respect of a measure of 'anxiety neurosis' between four matched groups consisting of cases of gastric ulcer, duodenal ulcer, non-ulcer dyspepsia, and non-dyspeptics. The non-ulcer dyspeptics showed the greatest amount of 'anxiety' on his personality inventory.

We can probably identify the dyspeptic picture found in the present investigation as, in the main, that functional 'non-ulcer' dyspepsia so often described, although we cannot exclude the possibility that a few cases might have had undiagnosed organic lesions. It thus appears that the large number of studies on the personalities of ulcer patients have no direct bearing on the personality picture in 'functional dyspepsia' as revealed in the present study. The only real indications in the literature are that such 'non-ulcer' dyspeptics are neurotic, and that their neurotic symptoms involve, to some extent, conscious anxiety. It is regrettable that Alexander, in his detailed psychoanalytic studies (1934, 1952), has not considered the possible distinction (believed by many other investigators to exist) between ulcer and non-ulcer dyspeptics.

The present findings

The findings for men and women have been considered separately, and only the correlates of Functional Dyspepsia (factor A) in men will be considered in the present paper. The difference between men and women, in respect of this factor, is not statistically significant (Student's $t=0{\cdot}40$ for 98 degrees of freedom), and we may conclude that there is no evidence that there is a difference in frequency of functional dyspepsia between the two sexes. This does not imply, however, that the psychological picture associated with the symptom pattern is the same in men and women.

The coefficient $r_{p.bis.}$ is the point-biserial coefficient of correlation, and r_c is a coefficient corrected for the variation in frequency of each item, and for the distribution of factor scores. r_c should be interpreted in the same way as the biserial correlation coefficient. These coefficients are discussed in the Appendix, Section 2.

The items of the inventory significantly associated with factor A, for 50 men, are listed in Tables 2, 3 and 4.

Table 2. *Items significantly associated with factor A at the first level of confidence* (0·1 %)

Item		$r_{p.bis.}$	r_c
1	I sometimes have pains which move from one part of my body to another	0·68	0·77
2	I am very uneasy when alone in a large open space	0·60	0·76
3	I worry about being accidentally killed	0·51	0·74
4	I sometimes worry in case I might be involved in a street accident	0·66	0·73
5	I sometimes have queer feelings in some part of my body	0·61	0·71

Table 2 (*continued*)

Item		$r_{p.bis.}$	r_c
6	I often feel my heart fluttering or thumping, even when I have not been exerting myself	0·48	0·71
7	I frequently have pains near the heart	0·60	0·68
8	I sometimes feel like vomiting when I get excited or nervous	0·60	0·67
9	I sometimes have the fear of fainting in public	0·58	0·67
10	I often find people are jealous of my good ideas just because they haven't thought of them first	0·50	0·64
11	I am often worried in case I might vomit or be sick in public	0·49	0·63
12	I worry about the prospect of having to bear pain	0·50	0·63
13	The thought of a surgical operation would terrify me	0·49	0·60
14	Hospitals make me very nervous	0·51	0·60
15	I sometimes have a fear of finding myself in a small, enclosed space	0·53	0·59
16	I feel nervous when I have to go on a train journey	0·49	0·57
17	I sometimes find myself worrying about the possibility of getting or having some terrible disease	0·48	0·56
18	I sometimes worry in case something may happen to some part of my body	0·47	0·55
19	I have peculiar and mysterious thoughts	0·46	0·51
20	I sometimes get a feeling of impending death	0·45	0·51

Table 3. *Items significantly associated with factor A at the second level of confidence* (1 %)

Item		$r_{p.bis.}$	r_c
21	I feel that I am temperamentally different from other people	0·39	0·80
22	I dislike the smell of perspiration	0·36	0·79
23	The thought of a difficult task before me makes me feel worried and apprehensive	0·38	0·77
24	I get furious with people who leave the lavatory in a filthy state	0·43	0·75
25	I sometimes have a slight feeling of contempt for people who are slovenly in their dress or behaviour	0·40	0·74
26	I am inclined to be careless about money	0·42	0·64
27	I feel embarrassed when I see another person making a fool of himself	0·36	0·64
28	I tend to worry about my state of health	0·44	0·62
29	There is some situation or thing of which I am particularly frightened	0·37	0·62
30	I am very nervous of knives	0·37	0·60
31	I feel uneasy when I am in a crowded place	0·44	0·57
32	I react very nervously to loud noises	0·44	0·57
33	I sometimes worry in case someone I am fond of will die	0·43	0·55
34	I get very impatient if I have to wait long for my food	0·41	0·54
35	My eyes seem particularly sensitive to bright light	0·44	0·53
36	I strongly dislike using public lavatories	0·39	0·51
37	I constantly seem to feel that I may have offended someone	0·42	0·51
38	I find it difficult to have any sort of pleasurable feeling	0·43	0·50
39	I worry about getting accidentally hurt	0·43	0·49
40	Sometimes I wish I could live without eating	0·42	0·48
41	I dislike having my hair cut	0·43	0·48
42	My mind dwells a good deal on death	0·40	0·46
43	The sight of food often nauseates me	0·39	0·46
44	There are some words I know but which I could not bear to say out loud	0·36	0·45

Table 3 (*continued*)

Item		$r_{p.bis.}$	r_c
45	I sometimes feel as if I might faint	0·38	0·44
46	I am very afraid of going to the dentist	0·38	0·44
47	When away from home I am usually concerned about when and where I get my meals	0·38	0·44
48	I cannot get to sleep if I have not done certain things in a special order	0·36	0·42
49	I occasionally have the thought of being attacked from behind	0·37	0·42
50	Certain types of food disgust me	0·37	0·42
51	I feel I am more sensitive to smells than most people	0·37	0·41
52	I am afraid of the dark	0·36	0·41
53	I think I am in as good bodily health as most of the people I know	−0·36	−0·41
54	I am nervous when I am left alone	0·36	0·40

Table 4. *Items significantly associated with factor A at the third level of confidence* (5 %)

Item		$r_{p.bis.}$	r_c
55	Sometimes I feel 'just miserable'	0·29	0·86
56	I feel I have not sufficient self-confidence	0·28	0·73
57	I sometimes hurt people I love, even without meaning to	0·28	0·70
58	I usually lack self-confidence when I have to compete against others	0·29	0·63
59	I get very annoyed at untidy or inefficient work	0·35	0·62
60	I am afraid of being disliked by people	0·32	0·61
61	I rarely wake up refreshed in the morning	0·32	0·61
62	I often go over past experiences thinking of different ways I should have acted	0·28	0·60
63	I am very sensitive to interference in my affairs by others	0·31	0·59
64	I tend to eat quickly	0·34	0·57
65	On the whole I regard myself as an essentially masculine person	0·32	0·56
66	I disapprove of sports involving the killing of animals	0·28	0·56
67	I sometimes have the feeling that I am being followed by people who wish to harm me	0·34	0·55
68	My desires are often at war with one another	0·29	0·53
69	I always feel uncomfortable when I do not know what is expected of me	0·30	0·53
70	I am concerned about myself and my position in the world most of the time	0·28	0·53
71	When I describe something I feel I must use exactly the right words	0·28	0·50
72	I sometimes have the fear that I will be discovered doing something wrong	0·32	0·49
73	I believe that deep down everybody believes in some sort of a God	0·30	0·49
74	I admire dominant personalities	0·31	0·49
75	I sometimes have daydreams of doing something really big	0·28	0·48
76	I feel that I probably have more fears than most people	0·29	0·48
77	I feel I never get what I really want	0·33	0·47
78	I sometimes get depressed because I feel I have done wrong	0·28	0·47
79	I feel weak or tired most of the time	0·32	0·46
80	I often experience strong pangs of conscience	0·32	0·46
81	I am apt to express my irritation rather than restrain it	0·32	0·46
82	I find it hard to part with things	0·30	0·46
83	I am troubled in my own mind about religion	0·33	0·45
84	I believe that people who know what is right should do their best to convince other people	0·34	0·45
85	The thought of sexual intercourse is repugnant to me	0·34	0·45
		0·33	0·44

Table 4 (*continued*)

Item		$r_{p.bis.}$	r_c
86	I wish I could read people's thoughts	0·33	0·44
87	I am often inwardly compelled to do certain things even though my reason tells me it is not necessary	0·29	0·44
88	I believe that it is wrong to be lenient to one's faults	0·30	0·44
89	I always get a good deal of conscious pleasure out of being polite to people	0·30	0·44
90	I sometimes have nightmares or frightening dreams	0·33	0·43
91	I am sometimes afraid of my thoughts	0·33	0·43
92	I sometimes wonder how others will react to my death	0·34	0·42
93	I think children should not be allowed to answer their parents back	0·33	0·42
94	I usually feel rather embarrassed when someone does me a favour	0·32	0·42
95	I often have the feeling that other people 'let me down'	0·33	0·42
96	I worry about picking up germs or dirt from door handles	0·32	0·42
97	I am afraid of death	0·34	0·41
98	I am concerned if I do not go to the lavatory regularly	0·31	0·41
99	I believe that a large number of people are guilty of bad sexual conduct	0·35	0·41
100	I quite often feel as if things were just not real	0·30	0·40
101	Sometimes I wish I were the richest person in the world	0·31	0·40
102	I don't like old people	0·30	0·40
103	I often have strong feelings of jealousy	0·32	0·40
104	I feel upset when people I know fail to recognize me in the street	0·32	0·40
105	I suffer from more aches and pains than most people	0·33	0·39
106	I often have the fear that others might think me unintelligent or ignorant	0·28	−0·39
107	I look forward to my meals	−0·34	0·39
108	I would be upset at the prospect of having an injection	0·34	0·39
109	I am generally uncomfortable when indoors	0·30	0·39
110	I often feel that the whole world is against me	0·33	0·39
111	I think that the inside of my body must be in a bad condition	0·35	0·39
112	I often seem to have arguments with busybodies	0·34	0·38
113	I have higher standards of cleanliness than the average person	0·34	0·38
114	My mind dwells a lot on thoughts of human tragedy	0·33	−0·38
115	I can be optimistic even when others around me are depressed	−0·31	0·37
116	I feel an urgent wish to go to the lavatory when anxious or excited	0·31	0·37
117	I am sometimes frightened that my emotions will get out of control	0·29	0·37
118	I sometimes have attacks of dizziness	0·30	0·36
119	I am rather afraid of water	0·30	0·36
120	I do not think it is right to use animals for medical experiments	0·31	0·36
121	I feel embarrassed when I see people displaying affection in public	0·31	0·36
122	I feel uncomfortable in the company of a cripple or anyone with a physical defect	0·31	0·36
123	My admiration for certain great people inspires me to emulate them in one way or another	0·30	−0·36
124	I get on well with others at work	−0·31	0·36
125	Athletics interest me more than intellectual affairs	0·28	0·36
126	I feel ashamed of my personal problems and difficulties	0·30	0·35
127	I often wish I were someone else	0·28	0·35
128	I sometimes feel that sexual activities could injure my health	0·31	0·35
129	At times I get short of breath without having exerted myself	0·30	0·35
130	I sometimes have a fear that I might choke	0·29	

Table 4 (*continued*)

Item		$r_{p.bis.}$	r_c
131	I sometimes worry that I may want to pass water at an inconvenient time	0·30	0·34
132	There are times when I feel that in some ways I enjoy being depressed	0·29	0·34
133	I feel that most people see the worst side of me	0·29	0·33
134	I have a feeling that some part of me is wicked	0·29	0·33
135	I think masturbation may harm my health	0·29	0·33
136	Some part of my body hurts very easily	0·29	0·32
137	I sometimes feel, without knowing why, that something terrible is going to happen	0·28	0·32
138	I am offended by the behaviour of many people I meet	0·28	0·31

These items are those significantly associated with the dyspeptic picture, and tend to be present in those who show the dyspeptic symptom-pattern and absent in those who do not show it. Where, however, the correlation is a negative one, as it is in a few instances, the item tends to be absent in the dyspeptics, and present in those who do not show the symptoms of functional dyspepsia.

An inspection of the items of the inventory significantly associated with the factor of dyspepsia shows that it is correlated with a number of other 'physical' symptoms (e.g. items 1, 5, 6, 7 and 8 at the first level of confidence alone). Indeed, about half of the items associated with this factor at the highest level of confidence relate in some way to somatic complaints. Of all the items in the inventory item 1 has the highest degree of correlation with the factor and refers to 'pains which move from one part of the body to another'.

It follows from this that the symptoms of functional dyspepsia do not occur in isolation, but are only part of a larger 'symptom-complex'. This fact may be of some importance in the differential diagnosis of functional dyspepsia, if it can be shown that other forms of dyspepsia (e.g. those due to an organic lesion) are unassociated with these other physical complaints.

It also follows that any attempt to construct a theory which attributes a specific psychopathology to functional dyspeptic symptoms must be unsuccessful. It seems hardly likely that functional dyspepsia *per se* can have, for instance, a symbolic meaning when it occurs in conjunction with somatic symptoms involving other systems of the body, and which are probably not themselves a direct result of dyspepsia.* Alexander (1952) speaks of a 'gastric neurosis', but in view of our present findings it would seem that the older and more widely used term of 'nervous indigestion' is more appropriate. Yet even such a label may be incorrect, for it has never been adequately demonstrated that psychological factors are *wholly* responsible for any of these symptoms It is possible that they may occur in a definite psychological 'type' (as in the present case), but this does not mean that their genesis is purely psychological.

A further examination of the items significantly associated with the dyspeptic picture shows many items which refer to conscious anxieties. These constitute most of the remaining items correlated with factor A at the first level of confidence, and also the great majority of the items listed at the second and third levels. These anxieties are disturbances of psychic function, and it would appear that there is a definite picture of *psychological* disturbance associated with that somatic

* An unpublished study of some fifty 'somatic' statements included in the inventory has suggested that there are two main groupings of these symptoms in neurotic patients. The first group comprises symptoms which refer to 'visceral' disturbances, including gastro-intestinal as well as cardiovascular upsets. The second group consists of symptoms which are predominantly musculo-skeletal in origin.

symptom-complex of which functional dyspepsia is an integral part.

The long list of things about which these patients are anxious suggests that they are the typically 'nervous' people well-known to general practitioners and the lay public. The fact that dyspeptics appear to be overtly anxious confirms many previous findings, for it has long been known that anxiety can directly influence a great variety of physiological processes, not the least of which are those relating to gastro-intestinal function. (Cannon, 1929; Wolf & Wolff, 1943). One may perhaps go further, and say that the dyspeptic's neurotic anxieties are not, strictly speaking, those found in the typical 'anxiety state'. He does not suffer from an overwhelming 'free-floating' anxiety or panic, but his fears are related to specific situations, activities, or objects. The psychological symptom-picture is perhaps related to that which has been described by Freud (1926) as anxiety hysteria, but it is not at all clear whether the particular anxieties shown by the neurotic dyspeptic are those which have in the past been classified as 'phobic', or whether he is a person who is first and foremost anxious, and who can only experience his anxiety by referring it to specific situations. Finally, it is possible that some of these anxieties may be obsessional in nature. There are a number of items, significantly associated with factor A at the second and third levels of confidence, which suggest an obsessive-compulsive component.

The present findings also imply that those neurotics who do not complain of dyspepsia are those who do not, on the whole, admit to conscious anxieties. We may speculate that these people constitute that group of 'unanxious' neurotics whose latent anxiety is bound in one or two neurotic symptoms, and who do not, on the surface, show as broad a picture of psychological disturbance as those who have dyspepsia.

It should be remembered that although we have shown a probable association between a syndrome of somatic dysfunction, and a particular pattern of psychological disturbance, that one is not necessarily the cause of the other. It is always possible that there is a common denominator—perhaps a constitutional factor—which may account for both.

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Appendix

Section 1

The eleven items of the Inventory which refer to gastro-intestinal symptoms were intercorrelated, using point product-moment correlation coefficients (ϕ-coefficients) for all 100 cases. Although it is common practice to use tetrachoric correlations when dealing with dichotomous variables, these were rejected for the present study because they can lead to a matrix of correlations which is internally inconsistent (two items may have a tetrachoric correlation of 1·00 and yet have different correlations with a third variable).

Thurstone's Centroid method (1947) was used in the factor analysis, and two factors were extracted, accounting for 32·8 % of the total variance of the items. These two Centroid factors are referred to as I and II. The actual position of these two factors in relation to the eleven items is dependent on the particular set of items chosen, but in effect any one of an infinite number of positions of the factor axes, at right angles to each other, would satisfy the basic factorial requirements. A graphical plotting of the two-factor space has suggested that a new position of the factor axes (factors A and B) would have most clinical meaning. The factors were rotated accordingly, and the new factor saturations are given below, together with the saturations for Centroid factors I and II.

The column headed h^2 gives the proportion of the variance of each item due to the two common factors. The row marked h^2 % gives the percentage of the total variance of each item attributable to the two common factors.

Item	Factor saturations I	II	A	B	h^2
1	0·63	−0·12	0·59	0·24	0·41
2	0·53	−0·33	0·62	0·02	0·39
3	0·28	−0·25	0·36	−0·05	0·14
4	0·63	−0·42	0·75	0·00	0·57
5	0·37	0·58	−0·01	0·69	0·48
6	0·29	0·17	0·15	0·30	0·11
7	0·51	0·35	0·23	0·57	0·38
8	0·51	−0·39	0·64	−0·04	0·41
9	0·57	−0·12	0·54	0·21	0·34
10	0·39	0·16	0·24	0·35	0·18
11	0·39	0·23	0·19	0·41	0·20
h^2 %	22·9 %	9·9 %	21·1 %	11·7 %	32·8 %

The factor scores were estimated from the answers to the eleven items, by computing the appropriate regression weights for each of the two factors A and B.

If S is the 11×100 score matrix in which the scores of the 100 subjects are written in 'normalized' form, and F the 11×2 factor matrix of orthogonal factors, then the population matrix (or factor-score matrix) P, of order 2×100, is given by the expression $P=(F'F)^{-1}F'S$, assuming that the factors are sufficient to account for the observed intercorrelations.

Every person has thus been given a score for each of the two factors, which is a measure of the amount of the factor possessed. In other words, it is a measure of the extent to which the person's own pattern of gastro-intestinal symptoms corresponds to the pattern represented by each of the factors.

The product-moment correlations between the two estimated factors should theoretically approximate to zero; and in fact they do, not only for the whole population of 100 cases, but for the men and women taken separately as well. The correlation between A and B for men and women together is −0·08, for men alone 0·00, and for women −0·16. None of these is significantly different from zero.

Section 2

Two measures of association between factor and item were used. The first is the point-biserial correlation coefficient ($r_{\text{p.bis.}}$) which is in effect the product-moment correlation between the factor and the item, where the factor is treated as a continuous variate, but the item has a discontinuous 'point' distribution. The advantage of this coefficient is that the standard error of the zero coefficient is constant irrespective of the number of cases answering 'true' to the item.

It can be shown that $r_{\text{p.bis.}}$ is related to Student's t as follows:

$$r_{\text{p.bis.}}=t(t^2+N-2)^{-\frac{1}{2}},$$

where N is the number of cases, and t has $N-2$ degrees of freedom. From this relation the various confidence limits of the zero-order $r_{\text{p.bis.}}$ can be calculated.

For fifty cases, the values of $r_{\text{p.bis.}}$ significantly different from zero are: 5 % level, 0·28; 1 % level, 0·36; 0·1 % level, 0·45.

These values assume that there is a normal distribution of the continuous variate, but in fact our own distributions are positively skewed. They are however, all unimodal, and it was considered that the degree of skewness would not markedly affect the significant values of $r_{\text{p.bis.}}$ calculated on the basis of an assumption of normality. In any case, as such a large number of correlations have been calculated between the factors and the items, a number of correlations found to be significantly different from zero will not in fact indicate a real association. Conversely, some real associations will not be reflected in statistically significant correlations. Caution should be exercised in the interpretation of the associations, especially in respect of those found to be significant at the 5 % level of confidence. To emphasize this, we have divided the observed correlations found to be significantly different from zero into three groups, corresponding to the 0·1, 1 and 5 % levels respectively.

The disadvantage of the point-biserial correlation coefficient is that its maximum possible value is never as great as 1·00, and varies with the relative proportions of people answering 'true' or 'false' to the item. It is therefore markedly affected by what might be called the 'threshold' for each item (corresponding to the 'difficulty level' of items in intelligence tests). To overcome this disadvantage, it was felt necessary to have in addition, some measure of association which would not be affected by the 'threshold'. Biserial r would normally provide a satisfactory measure

of this kind.* It assumes that the 'true-or-false' form of the item reflects an *underlying* normally-distributed continuous variate, and biserial r is then an estimate of the product-moment correlation which would have been obtained had the underlying measurements been available. It is further necessary for the distribution of scores in the second variate (the factor scores in the present case) to be normal, for even a slight departure from normality could distort biserial r, resulting in correlations of over unity.

In view of the fact that the positive skewing of the distributions of factor scores could seriously affect biserial r, it was decided to calculate a new measure of association, which we have called 'corrected' r or $r_{c.}$.

This new coefficient is simply the ratio of the observed $r_{p.bis.}$ to the maximum possible $r_{p.bis.}$ which could be obtained with the particular distribution of scores in the continuous variate, and for the particular number of persons answering 'true' to the item. It can easily be shown that if the distribution is in fact a normal one, then $r_{c.}$ = biserial r. The maximum $r_{p.bis.}$ is different for different numbers of persons answering 'true' to the item, and conversion tables have been constructed for men and women separately, for each factor, based on the observed factor scores.

In the interpretation of $r_{p.bis.}$ and $r_{c.}$ it should be remembered that the former is affected by the 'threshold' of each item, and that its maximum possible value is always below unity, in some cases considerably so. $r_{c.}$ should be interpreted in the same way as biserial r, and assumes that there is an underlying continuous distribution of scores in each item, and that a 'true' response is given only when a certain threshold value has been reached. It ranges from $-1{\cdot}00$ to $1{\cdot}00$.

* For a discussion of the phi-coefficient, $r_{p.bis.}$, and biserial r, see Edwards (1946).

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REPEATED SUICIDAL ATTEMPTS

By I. R. C. BATCHELOR*

In mental hospitals one encounters a few psychotic individuals, suffering usually from severe depressive or schizophrenic illnesses, who during periods of great emotional turmoil and agitation make repeated attempts at self-injury or suicide. Such cases have been described by Lewis (1927–8) and Menninger (1938). The conditions under which these attempts occur are artificial: it is likely that many of them are repeated because a strong and persisting self-destructive urge is not allowed full expression owing to the precautions which are taken to safeguard patients in hospital. In the community also there are a small number of people who make repeated suicidal attempts. Their behaviour presents a practical and theoretical problem of some importance. The examination of 200 cases of attempted suicide recently admitted to a general hospital, has provided the opportunity for a closer scrutiny of the situation.

Incidence of repeated suicidal attempts

Out of a total of 200 consecutive cases of attempted suicide (male, 92; female, 108), 46 (23 %) had made previous suicidal attempts (see Table 1).

Table 1. *Frequency and form of repeated suicidal attempts*

	Male	Female	Both sexes
Total previous attempts made	31+	52+	83+
Number of individuals making:			
One previous attempt	13	13	26
Two previous attempts	3	7	10
Three or more previous attempts	3	7	10

* Deputy Physician Superintendent, Royal Edinburgh Hospital for Mental and Nervous Disorders; Lecturer in Psychiatry, University of Edinburgh.

Repeated suicidal attempts tend to conform to the same pattern. In 36 of the 46 cases the methods used at previous attempts were similar to those employed at the present attempt, and in about half of these the methods used were identical. Ten cases had used at other times different methods: only two of these cases were depressives, the majority were psychopaths.

Table 2 shows how these cases were distributed according to age and psychiatric diagnosis.

Table 2. *Characteristics of those who had made repeated suicidal attempts*

	Sex		
	Male	Female	Total
Number	19	27	46
Age:			
20–29 years	2	4	6
30–39 years	5	10	15
40–49 years	4	5	9
50–59 years	3	6	9
60–69 years	4	2	6
70 years and over	1	—	1
Diagnosis:			
Psychopathic state	9	10	19
Depressive state	5	11	16
Epilepsy	3	5	8
Schizophrenia	1	—	1
Tabo-paresis	—	1	1
Mental defect	1	—	1

There is abundant evidence that the suicidal risk persists throughout a depressive illness, and that a suicidal attempt, though it may in some cases lead to a dramatic improvement by expiation, does not necessarily abolish the suicidal trend. Of the sixteen individuals suffering from depressive states who repeated their suicidal attempts, eight had made their previous attempts in the present illness. These

sixteen individuals composed 14·3 % of those in the whole series suffering from depressive states. In contrast, 45·2 % of those suffering from psychopathic states had repeated their attempts. It is probable that there are fewer depressives than psychopaths amongst those who repeat their attempts because the former tend to have longer periods of freedom from symptoms, to come under custodial treatment until recovery from their depressive attacks, and to be more determined and successful if they embark on self-injury.

These figures also draw attention to the considerable number of psychopathic and epileptic individuals amongst those who repeat their suicidal attempts. They comprise the majority of the group; and are found most commonly amongst those who make multiple attempts. Of those with a history of two or more previous suicidal attempts, there were:

	Male	Female	Total
Psychopathic states	2	7	9
Epilepsy	2	4	6
Depressive states	1	3	4
Feeble-mindedness	1	—	1

Of the ten individuals who had made three or more previous attempts nine were psychopaths or epileptics. Both individuals who had made five previous attempts were epileptics.

Here again the long persisting temperamental instability and the hair-trigger reactions of aggression in this group are demonstrated. We agree with the statement of Henderson (1942) that 'almost the most specific manner in which the psychopathic state shows itself is in the act of suicide'. Stekel (1929), emphasizing the impulsive and aggressive natures of many epileptics, suggested that an epileptic seizure may be a substitute for a crime, and may symbolize guilt, punishment and death. Whether or not we agree with this hypothesis, there is no doubt that the over-all behaviour of many psychopaths and some epileptics is very similar; and their suicidal attempts often bear close resemblances.

Two cases illustrative of repeated suicidal attempts may be quoted briefly.

Case 64

Female, married, aged 37. Diagnosis—Idiopathic Epilepsy. Maternal grandfather and both parents alcoholic. Second of five siblings. Unhappy childhood with much parental quarrelling. Her mother would walk out of the house in a temper at all hours of the day and night. Patient grew up over-attached to the unstable mother and hating her father. Asthma developed before puberty, and from an early age she had an 'inferiority complex', feeling the odd one out in her family.

At the age of 23, she married in accordance with her mother's death-bed wish, a man 8 years older than herself. The marriage has been unhappy, the patient being heterosexually frigid and showing homosexual trends with passionate attachments to older women. An epileptic personality, since marriage she has had both major and minor epileptic seizures.

Since her mother's death, the patient's similarity to and identification with her has been obvious. She has become a drug-addict, where her mother was alcoholic. She has punished her two elder children harshly, so that they are afraid of her; and rejected the third since birth (this child has been cared for in a home). She has been a spendthrift and snobbishly demonstrative, as her mother was. In the past 10 years her temperamental instability has worsened. The chief symptoms have been violent outbursts of temper, tension, intermittent depression of spirits, and persistent insomnia. At crises of thwarting and disappointment, she has attempted suicide five times (four poisonings) and has on five occasions been admitted to a mental hospital. When despondent she has said, 'I want to be with my mother again, it won't be long.' At other times she has declared that her great fear is that when she feels 'like a fiddle-string bursting' she will one day lose control and take her own life, when she does not want to die.

This woman's repeated suicidal attempts may be considered not only as situationally determined but as symptoms of a deep conflict in her personality, between a part of her which clings to life and another part which seeks to rejoin her dead mother; as atone-

ments for her sexual deviation and active cruelty; or as so many deaths and rebirths, as repeated attempts to be delivered anew into a more loving world.

Case 152

Female, single, aged 22 years. Diagnosis—Psychopathic State. Both parents are alcoholic. A sister has had a nervous breakdown. Youngest of four siblings. A broken home: her father was away on military service while the patient was aged 9–15 years, and her mother during this time is said to have used her home as a brothel.

From an early age the patient has been wilful, selfish, and has had a vicious uncontrollable temper. Her stated ambition is to become a gangster 'so that I will get my name in all the papers, and my name will live on even after I am dead': and her attitude she summarizes as 'I don't give a monkey's damn for anything'. She is morbidly restless, has had numerous jobs, and is now unemployed and drifting. Gross exhibitionistic trends were manifest: frequently since the age of 15 she has gone about dressed as a man and with a man's haircut, and she has had her arms professionally tattooed and has herself burnt initials on her upper arms with cigarettes. She claims to have been heterosexually promiscuous and is actively homosexual. She takes alcohol in excess.

This young woman has twice been a patient in a mental hospital, and has received intensive out-patient psychotherapy, without effect. There is a history of four suicidal attempts over the past 2–3 years (barbiturate poisoning twice, strangulation and cutting). The last suicidal attempt was characteristic. She had followed from her home town and was living with a divorced woman, to whom she was homosexually attached. This woman invited home a male acquaintance and suggested that the patient should go to the cinema for the evening and leave them. The patient promptly attacked and attempted to strangle her female friend; and this attempt having failed, she went off to a cinema where she took an overdose of barbiturates. Afterwards she stated in explanation of her action, 'I didn't think at all, I took them on the spur of the moment.'

We have here a typical history of severe behaviour disorder in a temperamentally unstable individual, whose grossly immature, egocentric, histrionic and dangerous behaviour has not responded to environmental influences. When thwarted, she responds with a temper tantrum or with actual violence, which may be homicidal or suicidal.

Psychopathology of repeated suicidal attempts

It is not only the occurrence of these repeated suicidal attempts but equally their failure which demands explanation. Some of the failures in this series were certainly near misses: the individual's survival was due not to a lack of determination in the carrying out of his act but to the efficacy of his medical treatment after it. But in other individuals the balance of forces tending towards self-destruction on the one hand and towards survival on the other has apparently been more delicate. Frequently, while morbid inner compulsions to self-injury have operated, there has also been an attempt to manipulate and to dominate the environment.

This *danse macabre*, this perilous flirtation with death, seems in some cases to be in the nature of a repetition-compulsion, a constraining, recurrent need to seek a lost parent or to expiate guilt, or a quest for deliverance and rebirth. The determinants of this type of repeated attempts are unconscious, may be numerous, and frequently stem from childhood. One may suppose that in the survivors of these attempts their instincts of self-preservation have been just strong enough to overcome their trend to self-destruction.

More often one can find an apparently adequate delineation of these repeated attempts in the description of grossly faulty habits of response, in the turbulent interaction between the impulsive personality and his environment. It is certainly necessary to emphasize the topicality, the reactivity, and the impulsiveness of many suicidal attempts. Probably about a third of all suicidal attempts are impulsive; and some of these, particularly some of the multiple attempts described in this paper, can best perhaps be described as frustration reactions.

Dollard *et al.* (1944), in elaborating a

'hypothesis of Frustration-Aggression', made references to suicide. Though they did not pursue far their investigations of the phenomenon, their work is suggestive. Generalizing from the clinical data available on the cases observed in this series, a description of certain attempted suicides as *acute frustration reactions* can be given. It must be stressed that this description is not intended to be relevant to all suicidal attempts (though no doubt the majority of suicidal attempts might be called in a wide sense, frustration reactions): and it is advanced not in denial of the many other, deeper motives to be discerned in most suicidal acts, but to complement them. It has practical applications in the management of the type of case which will now be delineated.

There is a group of unstable, mostly young, people whose suicidal attempts, which may be both dangerous and repetitive, are characteristically and overtly the products of thwarted aggression. The core of this group is comprised of those suffering from psychopathic states. Allied to these by the similarities of their impetuous behaviour are some epileptics, a few emotionally unstable mentally defective individuals, and a certain number of those whom one labels, *faute de mieux*, as suffering from neuroses—'reactive depressions'.

All these individuals appear to have a low frustration threshold. They have never become properly socialized, have been deprived of, or have never responded to, those educational and moral influences which are essentially a training in the toleration of frustration. On the contrary their primitive, immature reactions dominate their conduct, and typically they seek their own ends without delay or disguise. (The effects of broken homes in provoking these trends have been discussed elsewhere: Batchelor & Napier, 1953.)

This chronically low frustration threshold may temporarily be further lowered by physical factors—e.g. fatigue, alcohol, physical illness.

Such people, almost indiscriminately aggressive, come recurrently into conflict with the society of which they are members. They are thus frustration-prone: inevitably in their individualistic courses they are repeatedly thwarted. Indiscriminate aggression, instead of removing obstacles and achieving ends, is apt to provoke counter-aggression in others, and hence frustration of the aggressor and his ambitions. Aggression thus leads to frustration which frequently provokes further ill-judged aggression and further frustration. As frustration succeeds frustration, there is built up a state of mounting inner tension, with intermittent depression of spirits, insomnia, and increasingly frequent outbursts of irritation: until one day a further stimulus, which may be trivial, and is usually a quarrel, touches off an avalanche of unconsidered, unconstructive action. Less often there is no preface: the frustration is suddenly imposed, and as suddenly is found intolerable.

In individuals differently constituted, a state of unrelieved emotional tension may precipitate a 'psycho-somatic' physical illness or a neurotic or psychotic mental breakdown. In the cases we describe there is instead a crisis, which may take the form of a 'fit' of rage or an epileptic seizure, an attack upon the environment or upon the self. The typical development, the logical development (if one may so put it) would be a homicidal attack, since the aggression evoked is in the majority of cases directed primarily against some other individual, who is sensed to be the frustrating agent: most frequently this is a spouse, parent, lover or mistress, one of the classes of people who are in fact most commonly the victims of murderers. In the majority of cases fortunately the homicidal attack does not take place, or goes no further than minor violence. It is either displaced from its human target on to inanimate objects—furniture may be smashed, windows broken; or, as in our series of cases, turned inwards on to the self.

The method of suicide employed in these cases is usually the most readily available one.

The question immediately suggests itself, why is dammed up aggression released in this particular way in these cases and suicide thus commonly substituted for homicide? The

answer is not obvious. There are probably a large number of contributing causes, which vary from case to case. In the psychopath the inhibition of homicidal drives cannot satisfactorily be attributed mainly to super-ego influences, to feelings of guilt, since he is characteristically deficient in these; nor to ties of sympathy with the environment, which also typically he lacks; nor in any considerable degree to the moral influences of the environment, against which he is usually in rebellion. It is probable, however, that he is not entirely without psychological brakes, and it is likely that the prohibitions of law and religion, the reiterated Thou Shalt not Kill, do play some part in effecting his control. The potential victim of a homicidal attack may be too strong or too elusive; and there may be a close similarity in the suicidal attempt to the reaction of the frustrated child, who cries out in impotent rage 'When I'm dead, you'll be sorry.' Suicide may in some instances be carried out because the materials for it are obviously at hand. It must be noted also that suicide is not purely a self-injury, but it makes others suffer as well as the victim. It is an aggressive act against the established social order, and it may consciously be a punishment of relatives—'This will hurt you more than it will hurt me.' Reactions of spite and pique and the dramatic gesture—'I bid the world take notice I abhor it'—are common in this group.

It seems certain that in a number of these impulsive cases (this is a further aspect of their poor adjustment to reality) the ending of the violent outburst in suicide is not visualized. In retrospect, frequently the individual cannot understand his act. At one time he says it was attempted suicide, at another time he denies it. He thinks he wanted perhaps only a good sleep, to forget things, to make a break, to get away somehow from an intolerable situation.

The outburst, not having proved fatal, usually rapidly clears the air. For a few days the individual may be distraught, and is sometimes inaccessible, thrashing around wildly in bed: or the picture may be one of transient rearguard defiance and hostility, or of limp exhaustion and vomiting. But more often the aggression is radically discharged in the violence of the act, and the individual soon feels better and is relatively calm and self-controlled again even in the course of hours. His situation has altered in reality; perhaps temporarily for the better, because his act may have mobilized feelings of fear, pity and guilt in relatives and others, which elicit concessions and comforts for him. He is in fact usually more calm than for some time previously to his suicidal attempt, and he has often some appreciation of the abnormality and inappropriateness of his action. But there is no great discrepancy between the nature of the violent action and the personality of the erratic actor, and the calm is seldom lasting. Despite a history of previous suicidal attempts, prolonged hospitalization of these cases is usually inadvisable. The constraints of institutional care are often more inimical to them than the chances of life in the community. Some psychopathic and epileptic individuals, after admission to a mental hospital following attempted suicide, feel trapped and make frequent further suicidal attempts in a blind fury which seems atavistic and resembles the behaviour of some caged wild animals.

Summary

Out of a total of 200 consecutive cases of attempted suicide admitted to a general hospital, 46 (23%) gave a history of previous suicidal attempts.

14% of those suffering from depressive states, and 45% of those suffering from psychopathic states, had repeated their attempts. It is noted that in the former the suicidal trend is apt to persist throughout the depressive attack and is more apt to lead to a fatal outcome.

Individuals suffering from psychopathic states and from epilepsy comprised the majority of this suicidal group, and had made most of the multiple suicidal attempts. The characteristics of these attempts are outlined, their frequent reactivity and impulsiveness is

emphasized, and it is suggested that the concept of *acute frustration reactions* may be relevant to the repeated suicidal attempts which are made, sometimes at short and sometimes at long intervals, by some temperamentally unstable individuals.

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THE CLINICAL PSYCHOLOGIST AS A HUMANE SCIENTIST

By R. M. MOWBRAY*

This paper is an attempt by a novitiate to organize and formulate experiences as a psychologist member of a psychiatric team dealing with adult neurotic and psychotic patients. To some extent these problems are of forming concepts and of developing attitudes in working as a clinical psychologist—that is, problems of operational concepts, which are common to all the applied fields of psychological science, but the discussion here will be confined to clinical psychology, particularly concerned with adults. In brief the problem is to what extent the rationale of practice accords with the tenets of theory.

It should be stated at the outset that a particular concept-model of the clinical psychologist is being used. It is derived as a kind of composite picture from views expressed to the writer. To the non-clinical psychologist, the clinical psychologist is a recently conceived and perhaps ephemeral professional person, who, either with special training or without, has gone to work with or for psychiatrists. Here, he tests patients, sometimes on shaky theoretical grounds, and interprets the results to the psychiatrist. At his best, he can be expected to enlighten psychiatrists; at his worst he becomes a second-rate and non-medical psychiatrist. All too often he is involved in justifying empirical techniques for the psychiatrist, but if he does take the research opportunities which the field offers, he has a vast scope. He is not very likely to need a calculating-machine!

No discussion of the validity of this word-picture is offered. In the present period of unformalized background and training, at least some of this will be true in some cases.

* Assistant Lecturer in Clinical Psychology, Department of Psychiatry, University of Manchester.

The clinical psychologist in practice

The clinical psychologist operates at two levels—the scientific and the clinical. As a scientific psychologist, his subject-matter is the whole range of human behaviour and experience, and the dynamic relations between behaviour and experience. The mere fact that by bent, need or expediency he becomes primarily concerned with diseases or disorders of behaviour and experiences, or highly specific forms of these, does not absolve him from his duty to contribute to the general and central matter of the science. Nor does his specialization debar him from using this general knowledge to further his understanding of his atypical material. However, the unique nature of his material presents professional as well as scientific problems. As a clinician he is faced with human illness and suffering and must share some part of the burden of the psychiatrist and psychiatric social worker in providing alleviative measures. His therapeutic responsibilities are not directly to provide treatment, but to observe and describe the patient and to communicate his findings to those who professionally assume the role of therapists.

The needs of the patient and the science can, in the extreme, be antagonistic. It is inconceivable that an impersonal scientific interest in end-processes of a particular illness would be frustrated by treatment of the illness. The fact that the clinical psychologist only rarely experiences this conflict is a result of his assumed role of 'humane scientist'—in essence a defensive and compromise position.

The situations in which the psychologist working with the psychologically ill is involved are such that maximal demands are made upon his sympathy and empathy. Objectifying such professional relationships is a means of dealing

with possible over-involvement in the emotional difficulties of the patient, as well as satisfying the standards of reproducibility and comparison and measurement set by scientific method. For example, the objectivity claimed by the Rorschach test is the basis on which inter-individual comparison and measurement can be made and from which the perceptual characteristics of a particular patient can be assessed in relation to similar characteristics shown by a selected and defined group of patients or non-patients. But, further, the objectivity of the Rorschach is such that the patient's anxiety, say, is communicated by an emphasis on shading responses, rather than in terms of specific socially-encountered and individually experienced difficulties. The patients' emotional problems are inferred from and gauged by a parameter rather than from their expression in an interpersonal situation. This need for 'protective objectivity' may be one reason for the apparent willingness of the clinical psychologist to accept projective techniques as uncritically as the attention paid to the Szondi test, for example, would suggest.

The ascendancy of the protective over the scientific need for objectivity or vice versa will be a matter of individual differences between clinical psychologists. Suffice it to say that factors other than scientific loyalty or integrity operate in the clinical psychologist's acceptance and maintenance of the concept of objectivity. Because of this he can be called a humane scientist. The term, if its possible contradiction can be accepted, would imply a falling short of scientific standards. It is an awareness of this that constitutes the problem of method for the clinical psychologist.

The clinical psychologist's scientific integrity

By scientific integrity we mean conformity to scientific method, which we conceive as a body of rules independent of any scientist or subject-matter, and formally emphasizing the steps of observation, organization of data, formulation and testing of hypotheses. The behaviour of the scientist is controlled by this institution. Such control is effected by the training, both formal and informal, which he receives from his beginnings in his subject, his selection by background, ability and chance, his conscience (the extent to which he maintains loyalty to science and its methods), the research criteria set up by editors, publishers, professors, employers, colleagues and rivals (Hastings, 1951). Thus, scientific method would appear to have something of the nature of a categorical imperative for its exponents.

Further, as a result of the establishment of experimentation at the root of psychology, numbering or quantification has become the touchstone of theory. The use of numbers is not implicit in scientific method; consistency, definition and lack of ambiguity, however, are required. These needs could be met by logic, and to some extent were met in the philosopher's logic before 'scientific' psychology began to use the mathematician's logic. While there is no basic conflict between the use of number symbols and semantic symbols, we tend to abandon qualitative terms in favour of quantitative, because of certain inherent advantages in numbers. We regard numbers as being capable of greater refinement. We can have common links with the so-called physical sciences and techniques, in problems of method, and from this we may feel that we gain scientific respectability. Along with this respectability we get a faith in measurement and a belief that scientific truth will only be gained from measuring quantities. Thorndike is quoted as saying: 'Everything that exists, exists in some amount.' The task is then of finding how best to express the amount numerically. Our aim, we claim, is to investigate the nature of the phenomena by quantitative means, but as Maslow (1946) points out, we tend to become preoccupied with techniques rather than problems '...to consider that the essence of science lies in its instruments, techniques, procedures, apparatus and its methods, rather than its problems, questions, functions, goals'. This would seem

particularly true of our attitude to statistics. Our reverence of number may be merely a stage in development, a fad, or something in our Zeitgeist, but it is important to remember that scientific method in itself does not demand quantification, and that our concern with statistical techniques—praiseworthy as a craftsman's concern for his tools—in the extreme makes us tool-makers rather than craftsmen.

Taking the contemporary view, in which the terms 'scientific' and 'statistical' are almost synonymous, the clinical psychologist is puzzled to what extent statistics aid him in his considerations of diagnostic criteria or interpretation of the results of tests. Widely his problem is of reconciling the individual case with an assessed probability. In the actuarial sense, the statistical work basic to his tests will tell him how the 'here and now' scores of his patients compare to a distributed sample, or how popular a particular projective response is. More practically, the rarity or popularity of the response must be linked to a complexity of other patient variables, the majority of which have no probability attached. The problem has been expressed in something like the following terms:

By an estimated probability, based on an assumed probability, this particular sample of this particular patient's behaviour can be stated to be expected or unexpected for his age, sex, and other variables. My aim is to use the results of my sampling of the patient's behaviour to help the psychiatrist or therapist to understand and treat this patient effectively. In some measure, the mere knowledge that the test results are not common will help, for uncommonness of experience and behaviour is one of the criteria of psychiatric illness. If I have sampled intelligence, I can offer some hint of the patient's adequacy or inadequacy in adjusting to changes in his environment by arbitrarily transposing the numerical relationship between what he has actually done and what, for his age, he is expected to do, into qualitative terms. But this does not yield me the necessary information on how this uncommon behaviour developed, and what its relationship is to the way in which the illness arose, and what part it must play in assessing possible approaches to treatment. As a scientist my function should be simply to communicate my findings in respect to the frequency of occurrence of the particular aspect of the patient investigated. But this means that I must limit my contribution to a statistical criterion of psychiatric illness. But to the psychiatrist, the statistical criterion with its arbitrary normality is only one, and not a prime basis on which assessment of psychiatric disorder is based. Even the phenomena which I call psychological are merely one factor in his appraisal of the illness, so the usefulness of my contribution to the patient's interests will be very slight if I further limit my scope by using a secondary criterion.

The solution is that the psychologist frequently invests in non-standardized observation or even 'clinical intuition', and his use of tests may often be to demonstrate or confirm clinically observed phenomena rather than reveal them by tests alone. This non-scientific, intuitive, or impressionistic attitude is largely a result of the present position of too great demands being made on too little knowledge in psychopathology—a position which places a heavy premium on research by both clinical and experimental psychologists and psychiatrists.

The foregoing overstresses the differences between the scientific and clinical roles. It is in fact arguing by extremes. If the absolute scientific attitude and the absolute clinical attitude are polarities, operationally there is regression to the mean. The tough-minded scientist and the tender-minded clinician, by virtue of competing attitudes and needs of the patient, must yield their positions at the extremes, on the one hand in favour of subjective judgement and on the other in favour of increasing formalization.

As Hastings points out (1951), the scientist, not scientific method is the ultimate arbiter of scientific claims. The clinician's experience

means that he can provide himself with an accumulation of previous observations, organized to a degree, against which the 'here and now' phenomena can be compared. His reliability depends on the amount of organization and refinement of his observation, and on his consistency as an observer. His validity will depend on the extent to which he directs his observation to phenomena which are significant and discriminative. If, for example, he maintains clinical intuitions about the nuances of schizophrenic disorders, the significant phenomena to which he must be capable of attending are those common to all the schizophrenias, and those which differentiate the schizophrenias for him. If this is the nature of his clinical method, then he can have no real quarrel with scientific method which merely seeks to formalize the processes whereby he gains his intuition, and by communicating the results of these processes make his clinical experiences widely available. If the scientific method demands quantification of these observations, he may then complain that casting his qualitative observations in a quantitative mould will distort them, or that to quantify, he will have to take a different set of observations, which to him have a different significance. In general, however, even with the use of numbers, his objections can only be one of degree, for the relativist way in which he organizes his observation, say, by the terms 'more than' or 'less than', or by using positive, comparative and superlative terms, is closely linked to the ordinals of a ranked distribution, for example. This relativist formulation can satisfy Campbell's (1928) first condition of measurement, viz. '...that every system must either be greater than or less than, or equal to every other, and must be equal to at least one other. The first law of measurement is the statement that this condition is fulfilled.'

By and large the clinician accepts and values this transition from qualitative relativist concepts to ordered numbers. He is liable to show concern and uneasiness, however, when the possibility is suggested to him that his observations be fed into the maw of some more complex statistical manipulation. This concern may be due on the one hand to ignorance of statistical methods, or to defective education in psychology, or on the other to the inadequacy of existing concepts in psychopathology.

A parallel in training fliers in blind-approach techniques may be relevant. The pilot would accept the guidance given him by his instruments as long as this did not seriously conflict with his sensations, but in the extreme case of blindness where his intuitions might conflict with the information supplied to him by his instruments or ground controller, he would be dangerously tempted to renounce the technique. The law of effect operated with repeated successes, but the learning period could be shortened by 'propaganda' on the ground to convince the pilot that the technique was relevant and that variables such as height, speed, angle of descent, etc., could be controlled. Similarly, the psychologist can have faith in statistical method as long as he is able to use it as a tool or as long as it does not conflict with his purpose in using it. (This does not refer to a willingness to discard statistics if they do not 'prove' what he wants them to 'prove', but to economy. If a particular method of verifying his hypothesis demands a reformulation and further observation out of all proportion to the value he places on the significances of the hypothesis, then there must be a point reached at which he is willing to disregard the purists and turn to another, perhaps, less sensitive method.) But in the main, the conviction that statistics are indispensable to the treatment of psychopathological topics has still to be created. The method of reporting the single case as confirmation or refutation of an existing empirically-based theory, has not yet been replaced.

It is of interest here that Comrey (1950) has felt it necessary to discuss the relationship between rank-order, or intensive measurement, and extensive fundamental measurement, based on addition. Psychological properties

are amenable to treatment by ordinals, but the requirement of fundamental measurement is an equal-unit scale. Comrey maintains that psychology can go beyond rank-order measurement, but not as far as fundamental. He suggests that the actual compromise position between the two extremes will depend upon the extent to which such unit-scales can be derived. The clinical psychologist's reluctance to go beyond this rank-order measurement may be because he, of all psychologists, is least in a position to conceive of equal unit scales covering the properties he considers relevant. This is another way of pointing out the scientific immaturity of clinical psychology. As a science matures, we are told, it becomes more and more dependent upon mathematics. The science of abnormal psychology, or psychopathology, is still at the propaedeutic stage. With the development of research in psychopathology, the scientific and statistical sophistication of the clinical psychologist will increase.

The clinical psychologist and research

The need for research by clinical psychologists is great, both in methods of assessing and in refinement of the existing concepts. This latter or basic research in psychopathology, the common field of clinical psychology and psychiatry, will be considered here, as distinct from technique research.

The population in psychopathology consists of those who, for a diversity of reasons, enter the psychiatric field as patients. In the realm of nosology, psychiatric concepts predominate. In the Kraepelinian tradition, the group is split up on the basis of symptomatology, aetiology, natural history of the illness and so on into categorical disease-groups. The clinical psychologist entering the field with the concept of individual differences is in danger of disrupting the psychiatrist's concept of disease entities. True, the psychiatrist is at present expressing dissatisfaction with this form of organizing the population. There may well be an opportunity for the psychologist to use individual differences as the theoretical strength of the subject, as in general psychology, rather than the anarchy the psychiatrist may predict. The precedent offered by Prof. Penrose's work on mental defect is encouraging (1949). Here the normal theoretical distribution of intelligence is used and contrasted with the actually observed distribution. The coincident areas of both theoretical and observed distributions below the arbitrary normality represent Lewis's sub-cultural defectives (1951). The amount by which the observed extends beyond the theoretical distribution gives a measure of the amount of pathological defect. Lewis's dichotomy in Penrose's treatment sheds new light on clinical and theoretical problems of mental defect. The vast amount of work previously carried out on intelligence-testing and description and isolation of cognitive factors was basic to Penrose's presentation, and the psychologist may well expect to have to face a great deal of 'spade-work' in isolating, describing and refining orectic factors to a similar extent. It may well be that the limits of formal psychometric test-procedures will soon be reached in this field, and the psychologist and psychiatrist will be thrown back upon situational observation of both informal and later standardized kinds.

The experimental psychopathology of the future will in fact have 'situational testing' at its core. The phenomena we now regard as symptoms, for example, will be examined under controlled conditions to see how these aspects of experience and behaviour actually produce suffering to the patient. Perhaps this approach, too, will finally remove us from our present anomalous position of talking about our appraisal of the 'individual as a whole', the 'global personality', and the 'total organism', while in practice we atomize personality in psychometric and clinical examination.

Situational testing in itself will not abrogate us from the sovereignty of statistical methods. By virtue of its less indirect nature than present psychometrics, and by virtue of

its novelty, we may be able to place statistical methods in their proper context, as means rather than categorical ends. As the techniques become refined and the variables become controllable, statistics will become more and more indispensable. Undoubtedly the success of developing experimentation will depend increasingly upon statistics fashioned for the purpose and not vice versa. Ultimately the criterion of success of any scientific method is the extent to which it refines, explains, or controls our observations. In more abstract terms, the method should lead us to truth, but all too often we arrive at statistical truth rather than the psychological truth we seek. The numbers we derive from an abstract experimental situation yield significance, but we find difficulties in extracting this significance from the controlled conditions to apply in the everyday situation with its characteristically complex variables. McElwain & Lubin (1950) stress this distinction between psychological and statistical significance.

This apology for the clinical psychologist has viewed him as a humane scientist, and seeks to place him in a less arid environment than the ivory tower surrounded by a dust-bowl allotted to him by Mayer-Gross (see Tanner, 1953). This role, apart from considerations of personality and training (which are, of course, weighty), is determined by his subject-matter and his professional responsibilities. From one point of view the onus is upon him as a scientist to clear the way for research in psychopathology, yet his commitments to the all-too-numerous patients may divert his energies from future solutions to present problems demanding at least *ad hoc* solutions. In the language of the money-market, the clinical psychologist must weigh present need against estimated gain in the future. The degree of his enlightened faith in statistical method will determine the extent to which he invests in the 'futures' of research. The yield from such investment promises to be high for him, both scientifically and professionally. By conscientious research, the clinical psychologist can become more humane and more scientific.

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REVIEWS

Trauma, Growth, and Personality. By PHYLLIS GREENACRE, M.D. (Pp. xi+308. 30*s*.) London: Hogarth Press. 1953.

This book is a collection of studies published in American psychoanalytical journals from 1941 to 1951. The author, as Professor of Clinical Psychiatry at Cornell University, has a broad range of research interest while being fundamentally psychoanalytical. The articles throughout reveal the careful and detailed correlation of psychoanalytical findings with those of physical research and general psychology. As the title indicates the main theme throughout is the nature of early traumata and their effects in retarding or disturbing growth towards mature personality.

Prof. Greenacre takes up the theme of trauma at successive age levels from birth to adolescence. Thus she studies in turn the effects of birth and early physical traumata in the creation of the earliest basic anxiety; the reactions of the infant to traumatic restraints of bodily freedom; the experiencing of emotional trauma based on depriving aspects of anatomical structure both normal and abnormal; the traumatic effects of disturbing patterns of parental personality and relationship: sexual traumata through witnessing the primal scene or experiencing seduction in the infancy or in the prepubertal period. Throughout she makes detailed studies of the psychological concomitants and effects of all the many facets of early body growth—witness the title of chapter 7: 'Anatomical Structure and Superego Development'.

It is impossible to do justice to such work by attempting to summarize its wealth of detail. Instead we shall be content to select for brief notice one major problem to which the first quarter of the book is devoted; namely the earliest origins of anxiety. Clearly trauma cannot mean the same thing in all these different phases of development, and the same type of traumatic event has different effects at different phases. We may ask whether some common element exists in all traumatic situations which constitutes the *essence* of *psychic trauma*. Whether there be or not, a psychic trauma is a point of departure for disturbed growth and distorted personality-formation. That is the common theme of these papers, and as the author says: 'The earlier in life severe traumata occur, the greater are the somatic components of their imprints' (p. 274). Naturally, then, her investigation of the earliest origins of anxiety is especially important for her general theme. She distinguishes between the *Essential Neurosis* in which occurs an anxiety which has definite psychological content, and an earlier *Basic Anxiety* without specific psychological content, which is the result of birth trauma and other very early traumatic events in the preverbal period. She writes: 'I have advanced the tentative hypothesis that severe suffering and frustration occurring in the antenatal and early postnatal months, especially in the period preceding speech development, leave a heightened organic stamp on the make-up of the child. This is so assimilated into his organization as to be almost if not entirely indistinguishable from the inherited constitutional factors which themselves can never be entirely isolated and must rather be assumed from the difficult maze of observations of the genetic background of the individual. I believe this organic stamp of suffering to consist of a genuine physiological sensitivity, a kind of increased indelibility of reaction to experience which heightens the anxiety potential and gives greater resonance to the anxieties of later life.'

In the case of extremely anxious patients, Prof. Greenacre holds that measures must be adopted to allay manifestations of this Basic Anxiety before psychoanalytical treatment proper can be pursued. Her suggestions for handling such cases are not the least valuable part of her book. This is a volume that will repay close study rather than hasty reading.

H. J. S. GUNTRIP

Psycho-analysis and Child Psychiatry. By EDWARD GLOVER. (Pp. 42. 6*s*.) London: Imergo. 1953.

This important contribution to the literature on child psychiatry will be of great interest to all who are seriously engaged in work with psychological problems of children. It begins with references to the Freudian concept of the mental apparatus, and a special section on constitutional factors. Then the author goes on to deal with his concept

of functional disorder, classification of disorders, differential diagnosis and treatment.

The merit of this monograph is shown even in the author's emphasis on the difficulties and limitations of the work, and in the fact that he discourages unrealistic claims by therapists, with a special warning about 'rapport' therapy as distinct from psychoanalysis. But unfortunately his statements throughout have a pessimistic tone, which might happily have been an optimistic one, had he embraced the hopeful possibilities now made available by the discoveries of Melanie Klein. Surely none would deny the difficulty of assessing the mental dynamics in a child who is too young to be analysed, but Glover makes the startling statement that psychoanalysis, which first made child psychiatry possible, is now in its turn *dependent* on child psychiatry to establish the plausibility of its reconstructions of early mental development. Regarding this, he advocates the checking of all analytic reconstructions of infantile development by new techniques of child-observation, with rigid statistical controls. He then says that even with the most adequate control systems, we depend ultimately on plausible reconstructions or working hypotheses, but that these must not do violence to the basic concepts of mental function in Freud's master concept of the mental apparatus.

Glover describes some recent hypotheses by child analysts, regarding early infantile stages of mental development, as showing a deplorable lack of disciplined thinking, bordering on the pseudo-scientific. He suggests that this is because the analysts often lack medical and psychiatric experience and perspective. But one has only to read the late Susan Isaacs's paper on 'Criteria for Interpretation' to discover how sensibly scientific is the Kleinian method of research, and to realize that sound scientific method and disciplined thinking are more important in this work than medical or psychiatric experience.

On the other hand, Glover's classification of disorders is excellent, and his hints on differential diagnosis are most valuable. His classification is (*a*) disturbances of function and development, (*b*) symptom-formations which in some respects resemble the psychopathological states observed in adults. He gives a lucid description of the range of disorders. He starts with transient and sporadic functional disorders of instinctual excitation and discharge, expressed as he says through any of the 'end results' of normal psychic activity. Then he traces the range of more canalized and organized systems of discharge which constitute the core of psychosomatic disorders. These he distinguishes from the symptom-formations, e.g. psychoneuroses and psychoses, by stating that the former have no psychic content, while the latter have occult meaning. Glover stresses the need for valuation of not only the *current* function of the child's personality but also the *function in depth*, and one feels that here the Kleinian concept of unconscious phantasy would shed light in a dark place, but phantasy is scarcely mentioned. Nevertheless, this booklet is both stimulating and informative. S. F. LINDSAY

Handwriting Analysis as a Psychodiagnostic Tool. By ULRICH SONNEMANN. (Pp. 276. 35*s*.) London: George Allen and Unwin. 1952.

The author adopts a systematic as opposed to an impressionistic or atomistic approach. His system has been very carefully thought out and expressed, but never apparently submitted to any experimental check. In a section entitled 'How objective is graphology?' we are told that the matching method is the one *par excellence* for testing the systematic approach. Unfortunately this has not been done as there are insufficient psychologists in America trained in this approach. Inter-judge reliability must wait upon reliable recruits. These might have been more readily forthcoming had the author, presumably the principal exponent of the systematic approach, demonstrated that he could match with higher than chance success. This he has not done.

Part at least of this very thorough and complex approach lies in taking metaphors literally and putting implicit faith in the semantic wisdom of the race.

'Symbolically, if we imagine handwriting to be divided by a system of coordinates with the writing line as abscissa, all movements falling below this line are to be thought of as related to such experiences as in the writer's own system of inner orientation implies the general concept of "below", all movements falling above this line as related to such experiences as imply the general concept of "above".' The qualification of this rule, which the author makes, is not relevant to this context. He goes on 'In the symbolic

thinking underlying, without known exceptions, all human cultures, experiences related to the "static" concept of "above" or the "dynamic" one of "upward" are all those implying the concepts of God, heaven, day, the light, the spirit, freedom from gravity, from physical bounds, the world of ideas, of forms, of individual perfection, consciousness; experiences related to the static concept of "below" or the dynamic one of "downward" are those implying the concepts of animal, earth, the dark, the demonic, night, matter, gravity, the flesh, the world of collective and vegetative forces of life, of instincts, of the formless, and of dreams' and so on. 'Relative emphasis on either of the two peripheral zones of handwriting accordingly is *an evidence* of the relative emphasis, in terms of inner orientation and attitude, on the corresponding sphere of experiences.' This is the type of evidence which we are invited to accept.

Samples of the handwriting of various classes of psychiatric patients are analysed without any attempt at checking their validity, nor is there any indication of how the samples were selected.

In his Foreword Bela Mittelmann states that: 'Operating as a whole, graphology can take its place as a full equal in personality diagnosis with projective methods that have stood the test of time.' It seems unlikely to survive any other test, and this book will do nothing to disturb the view that there is something in graphology, but not much.

G. A. FOULDS

The Standard Edition of the Complete Psychological works by Sigmund Freud. Translated from the German under the General Editorship of JAMES STRACHEY, in collaboration with ANNA FREUD, assisted by ALIX STRACHEY and ALAN TYSON. *The Interpretation of Dreams* and *On Dreams.* In two parts (Vols. IV and V of the series consisting of 24 volumes). (Pp. 751. £36 per set of 24 vols.) London: The Hogarth Press and the Institute of Psychoanalysis. 1953.

One could think of no worthier task to mark the centenary of Freud's birth in 1956 than this translation of which these two volumes have been the first to appear. There has been an urgent need for such an edition which will no doubt become the basic source of psychoanalytical studies in the English speaking world. A number of works will be newly translated and old translations will be carefully revised. Changes and additions made by the author in the course of successive German editions will be noted and earlier versions given in footnotes, thus enabling the reader to follow the development of Freud's ideas. With James Strachey as the chief editor, advised and assisted by Anna Freud, this translation has an unrivalled authenticity.

This English edition of the Interpretation of Dreams is based on the eighth German edition (1930) which was the last published during the author's life. Every alteration of importance introduced into the book since its first issue has been noted. In an introduction the editor refers to the new information on this work brought to light by the recent publication of the Fliess letters and the *Project for a Scientific Psychology.* He points out that some of Freud's concepts and speculations have become clear only in the light of the Project, while the Fliess correspondence revealed a good deal of the process of the composition of the *Interpretation of Dreams.* The second of the two volumes contains the posthumous *A Premonitory Dream Fulfilled,* the essay On Dreams, a list of Freud's writings dealing predominantly or largely with dreams, and the Bibliography. An index of dreams analysed and an excellent general index conclude the two volumes which admirably present what Freud regarded as his most important work.

E. STENGEL

New Concepts of Hypnosis. By BERNARD GINDES, M.D. (Pp. xv+272. 15*s.*) London: Allen and Unwin. 1953.

Freud used hypnotism at one time, found it inadequate and abandoned it. His clearly stated reasons for doing so are accepted by most psychiatrists. Dr Gindes, too, found hypnotic treatment alone unsatisfactory. But in conjunction with hypnotherapy he believes he has found a shorter, and a better method of resolving intrapsychic conflicts than is provided by psychoanalysis. Freudian psychopathology he accepts without reservation. The problem, then, is to overcome the resistances without analysis and so reach the repressed material. In hypnotherapy lies the answer: repressions give way, early conflicts are seen consciously and the personality is

restored. This procedure, designated as new, explains the title selected for this volume, But hypnoanalysis is not new. The term was coined by Hadfield many years ago. He used this method after the First War in the treatment of traumatic war neurosis, and showed its limitations. Paul Schilder also combined hypnosis and analysis in certain circumstances.

Dr Gindes mentions transference in passing but does not dwell on its significance in relation to hypnotic treatment. The qualifications of the hypnotist are enumerated in detail. An air of authority is essential but should be supplemented by attention to details, for 'the stage must be set with the care and precision of a theatrical technician'. A personal analysis is not included, and the unconscious of the hypnotist himself, with its capacity for projection, remains unexplored. The unconscious, in Dr Gindes's opinion, is not all-important: it is 'an impersonal contrivance... it enacts every decree commanded by the conscious mind with utter servility, whether that mind be the one of its original master or of one who interposes.' Few with experience in the analysis of the unconscious will be impressed by such simplicities.

E. A. BENNET

Aspects of the Psychology of the Tuberculous. By GORDON F. DERNER. (Pp. 119. 25*s*.) New York: Paul Hoeber Inc. London: Cassell and Co. 1953.

Systematic contributions on the psychological aspects of pulmonary tuberculosis have been all too few in the past, and many magical ideas and superstitions concerning this illness abound at the present day. As one observer has remarked: 'The tuberculous patient has been described as being anything between an insane criminal and a saint too ethereal for this mundane world.' Dr Derner, a clinical psychologist, purports to improve upon Dr Wittkower's (1949) study of tuberculosis by employing a battery of psychological tests in addition to a standardized interview; he thus obtains control information which has been lacking in previous work. The purpose of his study is to attempt to discover some of the emotional factors *arising from* tuberculosis; he stresses the fear, apprehension, and depression that may stem from such factors as the social ostracism, lengthy treatment process, surgical intervention, financial loss, and possible fatal outcome. On this relatively superficial level the problem is complex enough and, understandably, he avoids theorizing about the possible role of psychological influences in the aetiology of the disease. Somewhat surprisingly, he has little to say about the aggressive reactions noted by Wittkower and by many phthisiologists.

Dr Derner's sample consists of thirty-two young adults from the tuberculosis wards of a general hospital in New York, each patient being seen for eight to ten hours, spread over several interviews. For some unexplained reason negro patients in the hospital were omitted from the study; perhaps a valuable opportunity was missed here. Furthermore, twelve of the thirty-two subjects were medically trained as nurses or doctors, giving the sample a special bias which certainly does not obtain in British sanatoria.

As might be expected, much of the book is devoted to the psychological tests used. Among these, the 'psychosomatic attitude pictures', based on the author's ingenious adaptation of the T.A.T., give some of the most interesting results. Apparently tuberculous patients constantly have their disease on the edge of their awareness and readily project their inner feelings about the illness.

Dr Derner concludes by advocating the use of psychotherapy when necessary in rehabilitation; in particular he suggests the use of group discussions led by a staff member. This book is a worthwhile contribution to our knowledge of tuberculosis.

A. B. SCLARE

Emotional Factors in Skin Disease. By ERIC WITTKOWER and BRIAN RUSSELL. (Pp. 214. 32*s*. 6*d*.) London: Cassell and Co. 1953.

Dr Wittkower, who recently studied tuberculosis from the psychosomatic viewpoint, now cooperates with Dr Brian Russell in an appraisal of emotional factors in skin disease. The book is the fruit of successful interdisciplinary collaboration between a psychiatrist and a dermatologist. It is intended primarily for general physicians and dermatologists and is lucidly written, free from jargon, and extremely instructive.

The opening chapter on the psychosomatic approach to skin diseases sets the tone for what is to follow. The importance of maintaining a cautious and balanced attitude towards psychological factors in dermatology is emphasized; emotional disturbance in skin diseases may be

causal, coincident or secondary. There is a helpful chapter on the investigation and management of dermatological patients. Stress is laid upon the need for building up a secure doctor-patient relationship while taking the history and carrying out treatment. Such insistence must be taken as a serious criticism of the many present-day hospital clinics where on the average only three to four doctor-minutes are devoted to each skin patient and where a given patient may see several different doctors at his follow-up visits to the clinic.

In the latter part of the book the authors describe their investigations in many specific skin diseases. Their findings in patients with pruritus vulvae and pruritus ani are particularly striking. Likewise, their eczema patients show clearly that the onset (or a relapse) of their illness is often triggered by certain life-situations, especially those threatening their sense of security; their make-up recalls the hostile dependence of many asthmatic patients.

Drs Wittkower and Russell are modest in their assertions. Their work also indicates the need for further research in this field. A. B. SCLARE

Contributions towards Medical Psychology: Theory and Psychodiagnostic Methods. By various authors. Edited by ARTHUR WEIDER, Ph.D. 2 volumes. (Pp. xxv+455; xi+430. $ 12.00.) New York: The Ronald Press Company. 1953.

Many of those at the beginning of their training in psychiatry find difficulty in getting started on their reading in psychology, for the books usually recommended to them seem too difficult, too specialized or too remote from their experience with patients. These volumes meet their need for an elementary introduction to the more practical applications of psychology in psychiatry, to clinical psychology rather than to psychopathology. They provide an anthology of what the Editor describes as 'the most pertinent, representative and comprehensible statements' from the recently published work of eminent authorities. Certainly, all the authors are 'big names' in their respective fields. All are American except Dr J. L. Halliday.

The price is high, but not unreasonable, for the volumes contain a great deal, indeed almost enough to enable a persistent reader to deceive the examiners in the D.P.M. psychology. However, they also encourage, and give a useful background for, wider reading. Especially the sections on test methods of diagnosis, which make up the second volume, are of interest to the medical reader because they give not only practical information about a variety of methods but also explanations of the principles involved. These volumes deserve a place in the libraries of hospitals that have D.P.M. candidates on their staffs. D. RUSSELL DAVIS

Problems of Consciousness. Ed. by H. A. ABRAMSON, M.D. (Pp. 178. $3.25.) New York: Josiah Macy Jr. Foundation. 1951.

This volume consists of the transactions of the second conference on Problems of Consciousness sponsored by the Josiah Macy Jr. Foundation and held in New York in 1951. The whole conference is one which should be followed by all those who are interested in trying to understand both the psychodynamic and physiological aspects of consciousness. It is the aim of the interdisciplinary conference to bridge this gap.

The contributions in this number are psychodynamic ones. While they make interesting and important reading, it must be admitted that, what is in effect listening in on the group, is stimulating and frustrating by turns. A great deal can be learned by following the thought processes of this group if the effort is made to deal with the greater difficulty of reading the transactions rather than from a straight presentation.

R. E. D. MARKILLIE

OBSERVATIONS ON THE PSYCHOANALYTIC THEORY OF PSYCHOSIS

FREUD'S 'A NEUROSIS OF DEMONIACAL POSSESSION IN THE SEVENTEENTH CENTURY'

BY IDA MACALPINE* AND RICHARD A. HUNTER†

It is generally agreed that Freud's 'brilliant analysis of the Schreber case first published in 1911' (Knight, 1940), forms the basis of the psychoanalytical understanding of the psychoses (Fenichel, 1945). According to Redlich (1952) 'Most of the...psychological propositions about schizophrenia...may be traced back to...Freud's ingenious discussion of the Schreber case'. Zilboorg (1941) says that 'Freud's views on schizophrenia...were based...on...the Schreber case...later clinical studies corroborated Freud's views that certain aspects of unconscious homosexuality are the determining factor in the development of schizophrenia'. Fenichel (1945) gives a long list of confirmatory publications.

'Perhaps no psychoanalytic theory of a psychosis rests on firmer foundations or has been less frequently attacked' (Knight, 1940). Yet according to Zilboorg (1941): 'This study...was more or less speculative', and Freud himself described his analysis as 'only a fragment of a larger whole' and said that 'much more material remains to be gathered from the symbolic content of the phantasies and delusions of this gifted paranoiac' (Freud, 1911, p. 466). He added that 'it is not at all likely that homosexual impulses which are so frequently (perhaps invariably) to be found in paranoia, play an equally important part in the aetiology of that far more comprehensive disorder, dementia praecox' (Freud, 1911, p. 464).

It is surprising that not even the changes in the libido theory, namely the introduction of the death instinct, and the changes in the concept of transference (Macalpine, 1950)—for instance the recognition of negative transference—led to any re-evaluation; particularly as Schreber was interpreted by Freud solely on the basis of libidinal transference from father, to his physician Flechsig, to God. Menninger (1942) called attention to the fact that Freud's analysis 'has been accepted by psychiatrists pretty generally all over the world, in spite of obvious logical fallacies', and stressed the importance of 'the destructive tendencies and the impulses of hate...mingled with homosexual attraction'. Knight (1940) attempted to revise Freud's theory of paranoid symptom formation in the light of the changes in the theory of instincts, because he felt that it 'leaves something to be desired in the way of completeness', and raised other important issues to be discussed later. Klein (1946) also stressed the importance of aggressive (death) instincts in Schreber's psychosis.

All confirmatory studies of Freud's paper, as well as those which attempt to bring the paper into line with the libido-death theory of instincts, are, however, based exclusively on manipulating those parts of Schreber's Memoirs which Freud had extracted in order to prove his point. This may explain why, despite obvious weaknesses and discrepancies, no fundamentally different interpretation of the whole of Schreber's illness and the dynamics of the case had been attempted.

Studying the psychoanalytic basis of schizophrenia we therefore went back to Schreber's original Memoirs (Macalpine & Hunter, 1953), and it was in this connexion that our interest was aroused in Freud's 'A neurosis of demoniacal possession in the seventeenth century'. Our conclusion in the Schreber case was that projection of unconscious homo-

* Dermatological Department, St Bartholomew's Hospital.
† Department of Psychological Medicine, Guy's Hospital.

sexuality, though playing a part in the symptomatology, could not account for the illness, either from the phenomenological or the aetiological point of view. In this finding we were in agreement with Bleuler (1912), one of Freud's friendliest critics, who felt that 'not even in Schreber's case does it seem proved that the denial of homosexuality is the factor which produced the illness, although it plays a large part in the symptomatology of the case'.

From our re-examination of Schreber's autobiography it became clear that over-emphasis on genital, homosexual, and neurotic aspects, had led Freud to disregard material showing obvious psychotic mechanisms, namely the irruption of archaic, pregenital, asexual procreation phantasies with concomitant loss of sex differentiation. During his illness Schreber was as much male as female, both as neither. This state of absolute ambisexuality accompanying the emergence of archaic, pregenital procreation phantasies we put forward as the hallmark of a fully developed schizophrenic psychosis. Further it was noted that Freud had confined his analysis to Schreber's mental symptoms, and disregarded the hypochondriacal (somatic) delusions which clearly from his autobiography constituted his greatest sufferings. These were shown to represent the deepest and most disruptive layer of his procreation phantasies, and in them lay the clue to his psychosis: paranoid schizophrenia.

When this material was taken into account it was evident that archaic, pregenital procreation phantasies exist in their own right, and arise independently of passive homosexual wishes. Moreover, in the emergence of procreation phantasies and confusion about his procreative possibilities and the nature of his own sex, Schreber exhibited the two pathognomonic features of schizophrenia.

Freud (1923) published his study of the 'neurosis of demoniacal possession' because he considered the painter's case to provide confirmation of his views on the relationship of homosexuality to paranoid symptom formation as formulated in his Schreber paper 'Psychoanalytic notes upon an autobiographical account of a case of paranoia (dementia paranoides)' (1911). 'The case of our neurotic seventeenth century painter' (451)* can only be understood through the Schreber case: 'only since...Schreber...have we been able to speak of such things' (456).

In the literature it seems to have been tacitly accepted as such, though references to it are few and far between. This is the more surprising as Freud had 'found it impossible to explain the case in a manner which disposed of all doubt', but had 'ventured on a surmise which has the advantage of putting the events in the most natural order, even though the documentary evidence does not entirely cover it' (461).

The only attempt at criticism we could find is that of Fairbairn (1943), who felt that Freud in this 'fascinating paper...fails to do justice to the significance of the cure no less than to the significance of the disease'.

Although the 'Neurosis of demoniacal possession' occupies a lesser position compared with the unique position of Freud's Schreber study, it has a fourfold significance:

First, since Freud intended it as confirmation of his conclusions on the Schreber case, re-evaluation of the one must inevitably involve the other. In both, according to Freud, the patient developed a passive homosexual longing for the deceased father; as this implied castration unacceptable to ego or superego it gave rise to libidinal conflict and hence the 'neurosis'. In each case 'what he is struggling against is the feminine attitude to the father, which culminates in the phantasy of bearing him a child' (455).

Secondly, the material on which interpretations are based is not as in an ordinary case history selected according to the investigator's bias, but 'the story of the destitute artist' (Fairbairn, 1943), is available for reinvestigation complete in its original form (Haizmann, 1678). Just as Schreber's autobiography, 'this

* Page numbers given in brackets after quotations refer to Freud's 'A neurosis of demoniacal possession in the seventeenth century', *Collected Papers*, 1949, **4**, 436.

invaluable book' (456), formed the basis of Freud's analysis of that patient, so an illustrated manuscript provided the basis of his study of a 'neurotic...painter' (451).

Thirdly, the painter's story is far from being an isolated account of demoniacal possession; on the contrary, as a variant of the Faust legend, its theme is 'one of the most ancient in the history of humanity' (Rose, 1925). Its psychiatric importance Freud saw in the fact that 'cases of demoniacal possession correspond to the neuroses of the present day' (436), and 'furnish that pure metal which in the neuroses of a later age...can only be extracted from the raw ore of symptoms and associations by a laborious analytic process' (451).

Fourthly, Freud's study is important, quite apart from the case material presented, for the fundamental psychiatric and psychoanalytic issues it raises. As stated before, together with the Schreber study, it formed his major clinical contribution to the understanding of the psychoses and is indeed the basis of the present-day psychoanalytic approach to them. Theoretical questions arise, of great importance to practice as well. For instance, the differentiation of neurosis, psychosis and narcissistic neurosis; the psychopathology of delusional symptom formation; whether libidinal conflict in general and conflict over unconscious homosexuality in particular, that is the inverted Oedipus situation, can explain psychotic illness. Further, whether pregnancy phantasies are always secondary and to be assessed only as consequent upon passive homosexual wishes originating in libidinal attachment to the father; or whether as archaic procreation phantasies they exist independently in their own right. If it can be shown that they do, then doubt must arise whether the libido theory can explain psychotic illness, the point from which Fairbairn's criticism started.

This study is divided into two parts: in the first the evidence for Freud's interpretation of the painter's illness will be considered by re-examination of the original material; in the second questions of theory will be discussed. It is intended to prove that Freud showed the same bias in his treatment of the painter's case as he did in Schreber's, and that neither in the latter nor in the former can the illness be accounted for as wish-fulfilment on the basis of libidinal conflict arising from repressed unconscious homosexuality.

Case history

Freud's 'A neurosis of demoniacal possession in the seventeenth century' (1923) was based on an old manuscript 'in which was described in detail how a pact with the Devil had been redeemed in a wonderful manner through the interposition of the Holy Virgin Mary' (437). Discovered by Payer-Thurn, Director of the Imperial Library in Vienna, it had been sent to Freud 'for a medical opinion' because 'the person whose redemption was described had been subject to visions and convulsive seizures' (437). It had originally attracted Payer-Thurn's attention because it appeared to be a variant of the Faust legend, and could therefore claim wide literary and cultural interest, and he later published an independent study called 'Faust in Mariazell' (1924).*

The patient, Christoph Haizmann, was a painter suffering from 'melancholic depression with incapacity for work and (justified) anxiety about his future' (444), as well as 'visions and convulsive seizures' (437). He 'sold himself to the Devil...in order to be freed from a state of depression' (445), made two pacts with him, one written in ink and one

* Payer-Thurn (1924) rendered the manuscript in full, but only reproduced one of the painter's pictures, the illustrated title page. The standard edition of Freud's works has no illustrations, but three of the painter's pictures (Figs. 1, 2 and 5) were reproduced in a special limited bibliophilic edition of 'A neurosis of demoniacal possession in the seventeenth century' published in 1928. Our investigation is based, in addition to these, on photographic copies of the entire manuscript including all the painter's pictures kindly supplied by the Austrian National Library, Vienna, through the courtesy of Dr F. Unterkircher, to whom we wish to express our gratitude for permission to reproduce the pictures.

in blood in which he promised to be '"the son of his body"' (447) for a period of nine years. 'Remarkable to relate it was not for... wealth, immunity from dangers, power over mankind and the forces of Nature... pleasure, the enjoyment of beautiful women.' (443). It was in fact the painter who was to render an unspecified service to the Devil: 'that this man should barter his soul, not for something the Devil shall afford him, but for a service which he shall himself render to the Devil' Freud found 'entirely illogical and absurd' (445). These pacts with the Devil were 'redeemed in a wonderful manner through the interposition of the Holy Virgin Mary' (437) in the shrine at Mariazell.

Freud's analysis

Freud stated specifically that he was going 'to consider this Bond with Satan as if it were the case-history of a neurotic' (443), and his analysis of the painter's illness was based on 'our assumption that the Devil to whom the painter sells himself is a direct father-substitute' (451); in fact 'that the Devil is an image of the father and can act as an understudy for him has never been so clearly apparent as in the case of our neurotic seventeenth-century painter' (451).

Attributing the painter's depression to the 'fact' that 'his father had died' (445), Freud went on to assume the following 'train of thought motivating this Pact.... Owing to my father's death I am despondent and can no longer work; if I can but get a father-substitute I shall be able to regain all that I have lost (446). This incomprehensible Pact would then acquire a straightforward meaning.... The Devil binds himself... to take the place of his lost father to the painter' (446). But 'Not even our painter's wretched situation in life would have induced his neurosis of demoniacal possession, had not his material necessities served to intensify a longing for his father' (471). However 'In his mourning for the departed father, and its intensification of the longing for him, the long-since-repressed phantasy of a pregnancy is re-awakened in our painter, which he must then defend himself against by means of a neurosis and by denigrating the father' (455). This 'neurosis' is the 'struggling against the feminine attitude to the father, which culminates in the phantasy of bearing him a child (nine years)' (455); 'it is his struggle against accepting castration which makes it impossible for the painter to yield to his longing for the father' (456). Freud stressed the importance of the painter's being 'incapable of work and... apprehensive about his livelihood' (468) and his need for 'security in life' (470) to account for his representing the Devil 'so generously with breasts because he is to become a foster-father' (468).

Freud's analysis, then, was based on the following points: (1) that the Devil is a superman, both in mythology and in the painter's pictures; (2) that the painter was looking for a father-substitute because his own father had died and that this was accentuated by his material wants; (3) that this longing for the departed father aroused in the painter a passive homosexual wish phantasy as evidenced by the recurrence significantly of the number Nine in his pacts with the Devil; (4) that this homosexual wish-phantasy was unacceptable because it implied castration. In this way Freud based his analysis on libidinal conflict and called the painter's illness a neurosis. What was the evidence?

The Devil—a father-substitute

Freud's interpretation of the painter's illness pivots upon the Devil being a father-substitute, representing the negative aspect of the son's ambivalent attitude to the father. 'It requires no great analytic insight to divine that God and the Devil were originally one and the same, a single figure which was later split into two bearing opposed characteristics (450).... If the benevolent and righteous God is a father-substitute, it is not to be wondered at that the hostile attitude, which leads to hate, fear and accusations against him, comes to expression in the figure of Satan' (451). Freud encountered difficulties, however, quite apart from the fact that 'we so seldom in analyses

find the Devil figuring as a father-substitute' (451). Except in the first appearance of the Devil 'in the shape of an honest burgher...in all of the subsequent apparitions breasts appear, sometimes singly, sometimes multiplied' (454). Moreover, 'the forms he assumes after become ever more terrifying, one might almost say more mythological; he is decked out with horns, eagle's talons and bat's wings; finally he appears in the shrine as a flying dragon' (449) (see Pls. 1 and 2).

'But why does the father, now reduced to the status of Devil (455), that mighty personage (454), a male, a superman indeed, with horns, tail and penis-serpent (455), exhibit one of the bodily signs of womanhood?' (455) asked Freud. 'Two explanations...present themselves. The feminine attitude to the father became repressed as soon as the boy realized that his rivalry with the woman for the father's love implies the loss of his own male genital, that is to say, implies castration. Repudiation of the feminine attitude is therefore a result of the struggle to avoid castration; it regularly finds its most emphatic expression in the contrasting phantasy of castrating the father and turning *him* into a woman. Hence the Devil's breasts would represent a projection of the man's own femininity on to the father-substitute. The other explanation of these female appurtenances in the Devil is in terms of tenderness, not of hostility; it sees in this female shape an indication of a transference of infantile affection from the mother to the father' (455).

A glance at the pictures, as well as the painter's description of these increasingly 'loathsome' (443) and 'most terrifying' (466) apparitions, make it difficult to accept that the female characteristics which appear in them can be interpreted 'in terms of tenderness', 'of a transference of infantile affection from the mother to the father'. Further, it is difficult to maintain a primarily phallic significance for the Devil, 'a superman indeed', when in seven out of eight single reproductions of him 'breasts appear, sometimes singly, sometimes multiplied', and 'on one occasion only, in addition to these breasts, the Devil has a large penis ending as a serpent' (454). Nor can it be maintained that 'a mode of representing the Devil "with breasts" is in itself quite unusual' (454).

These characteristics can in fact quite readily be understood from a brief consideration of the evolution of the Devil in mythology.

The Devil, snake and dragon in mythology

The Christian Devil, though sometimes represented as a male, 'frequently appeared in the form of a snake or fiery dragon' (Jones, 1910, p. 170), being merely a derivative and late development of the dragon of ancient times, itself 'a purely secondary aspect of the Serpent' (*Encyclopaedia Britannica*, 1911*a*, p. 681), so ancient that 'it is impossible to deal with the subject...historically' (p. 676).

The dragon of mythology, 'a fabulous monster, usually conceived as a huge winged fire-breathing lizard or snake' (*Encyclopaedia Britannica*, 1911*b*, p. 466), 'was created when all three larval types—serpent, eagle-lion, and antelope-fish—were blended....Repeated substitution of parts of other animals...led to endless variations in the dragon's traits' (Smith, 1919, pp. 232, 233).

'As the real significance of the snake's symbolism originated from its identification with the Great Mother in her destructive aspect, it is not surprising that the snake is the most primitive form of the evil dragon' (Smith, 1919, p. 231)* and that 'with the development of a higher conception of religious ideals it became relegated to a baser role' (p. 234). This 'process of specialization and differentiation might even involve a change of sex' (p. 227).

The dragon, by no means originally evil, was in fact 'a concrete expression of the divine powers of life-giving' (Smith, 1919, p. 234) and like 'the serpent stands at the head of the human race as the mother of all' (*Encyclopaedia Britannica*, 1911*a*, p. 679), hence its prevalence in heraldry, etc.

* Proverbially 'old dragon' refers only to women.

Jones, from the psychoanalytic point of view, noted 'the remarkable interchangeability of the sexes in this whole group of myths' (Jones, 1910, p. 260), 'the bisexual nature of the whole belief...in the conception of the Devil' (p. 179). Further, 'there is ample evidence of pregenital factors at work in the composition of this group of ideas' (p. 303): for instance the Devil 'was provided with an earthly mother but no father', and 'has no semen' (p. 179); also the Devil's 'interest in building, one we would trace ontogenetically to one of the infantile conceptions of parental childmaking: according to this babies...are constructed out of intestinal contents' (p. 168).*

These few examples from the vast literature show that the Devil is of neither sex, but symbolizes 'both the male and female principle, in other words the whole reproductive side of our nature' (Jones, 1910, p. 302). Being a procreative symbol representing the creative, life-giving and fertility principles, the Devil belongs as much to either sex, as to both, and being presexual in origin, to neither.

The painter's Devil

Theoretical considerations and mythological evidence aside, the painter shows clearly in his pictures what the Devil meant to him. There are eight separate pictures of the Devil (Pls. 1, 2) illustrating a progression from the first in which he is shown as 'an honest old burgher...and beside him a black hound' (449), the only one in which he appears as a man, to the last 'terrifying...flying dragon' (449) with human face, bat's wings, bird's claws, large breasts, horns, part serpent and part fish, when in a sea of flames he returned the pact to the painter in the Shrine of the Holy Virgin Mother at Mariazell on Her birthday, midnight, 8 September. The Devil's appearances in the painter's various visions and temptations are illustrated in the intervening pictures.

All the pictures show a composite creature of various human and animal attributes assembled into one single terrifying apparition; there is nothing to suggest that the figure is that of 'a male, a superman indeed, with horns, tail and penis-serpent' (455) as exaggerations of phallic significance. The serpentine tail issues from the anatomical site of the tail in Pl. 1, figs. 3, 4 and Pl. 2, figs. 7, 8; in Pl. 2, fig. 5 in the middle between bird's legs. In no picture is the serpent in the anatomical position of the penis. Apart from horns of varying shapes in Pls. 1 and 2, serpentine or worm-like structures issue from the heads in Pl. 1, fig. 4, and Pl. 2, figs. 5–7. These serpents then are neither in shape, size, nor position comparable to a penis; on the contrary they redouble the emphasis of the serpent origin and nature of the Devil; only superficially are they a phallic symbol.

In fact there is really no genital differentiation in these figures. Their terrifying nature lies precisely in the very lack of distinction, and in the combination of features of both sexes.* There are no male or female characteristics as such, but reproductive features only. Freud himself remarked that 'there is never any indication of the female genitalia' (454); nor for that matter is there ever any indication of the male genitalia and further evidence of the absence of differentiation into male and female.

These composite figures can, however, be taken as attempts to express in concrete form the abstract idea of procreation. This is further borne out by many of the figures' characteristics: the multiple breasts, the protuberant abdomen, the obvious umbilicus, the feminine stance in Pl. 1, fig. 4 and Pl. 2, figs. 6, 7; the animal features;† etc. Further

* In this connexion one of the Devil's pranks may be mentioned: 'to surprise *in flagranti* a man and a woman in carnal sin and to bind them together inseparably, *more canino*' (Jones, 1910, p. 177).

* Freud (1908) discussing sexual theories of children, confirms this view: 'actual hermaphroditic formations...always excite the greatest abhorrence'.

† The cloven hoof (Pl. 1, fig. 4) is itself a 'fertility concept' (Jones, 1910, p. 302).

evidence is provided by the fact that when the Devil appears as a 'burgher' he is accompanied by a 'black hound'. In Goethe's Faust 'a black dog like this turns into the Devil himself' (449).*

It is of great interest that Schreber showed precisely the same phantasies: he believed that he was changing into a reproductive woman. As he emerged from his illness this belief was limited to the idea that he was growing breasts; at the same time his genitals were to be retracted into his abdomen, there to be transformed into the corresponding female reproductive organs. He visualized this as 'a process which might last decades or centuries before it was completed' (Schreber, 1903, p. 387), so that he would 'probably die as a man, showing early but unmistakable signs of such a transformation' (p. 289). But despite the fact that his illness lasted nine years, 'only on two occasions had I for a short time a poorly developed female genital' (p. 4). Where Schreber speaks of 'thinking of myself as man and woman in one person' (p. 282), and having 'felt quickening corresponding to a human embryo' (p. 4), the painter depicts the Devil as a double-sexed creature stressing the procreative aspect, and lacking the external genitalia of either sex. In both patients archaic, pregenital, procreation phantasies of a unisexual, parthenogenetic or supernatural nature emerged, with loss of mature sex differentiation and concomitant confusion about and doubt in their own sex identity and procreative possibilities. This we believe was the substance of their psychosis.

Homosexuality and castration anxieties

Freud's analysis was centred on mature sex drives. He maintained that the Devil's 'female appurtenances' (455) revealed the painter's passive homosexual libidinal attachment to the father originating in the inverted Oedipus situation. He supported his analysis by the following points:

(1) That the Devil as he appeared to the painter was 'a superman' (451). But both the mythological evidence as well as the painter's pictures show the direct descent of the Devil from the Serpent-dragon, a belief which does not differentiate male and female, but is ambisexual and 'prephallic' (Smith, 1929).

(2) Freud appreciating only the phallic aspect of the Devil saw him only as a 'father-substitute', an 'image of the father' (451).

(3) This logically led Freud to search for 'some motive or other he must have had to have any such dealings at all' (444) with the Devil. He thought he had found the reason in the sentence 'Accepta aliqua pusillanimitate EX MORTE PARENTIS' (445, Freud's capitals): 'That is to say, his father had died and he had consequently fallen into a state of melancholia....Truly an excellent motive' (445). It now seemed obvious to Freud why the painter had made 'this incomprehensible pact' (446) with the Devil. Its 'straightforward meaning might be expressed thus:...if I can but get a father-substitute I shall be able to regain all that I have lost' (446). Hence Freud argued that the pact simply meant that 'the Devil binds himself for a period of nine years to take the place of his lost father' (446). But Freud's preoccupation with the phallic significance of the Devil led him to a corresponding bias about the evidence for the death of the painter's father: 'EX MORTE PARENTIS' leaves open the question which of the painter's parents had died; from the Latin text it is impossible to say; it may as well have been his mother.* Thus one of Freud's main arguments is unsupported by the documentary evidence.

It is of considerable significance that Freud showed an analogous bias in his analysis of the Schreber case. There he interpreted the sun, like the Devil-dragon, as a male symbol only, neglecting the female aspect (Abraham,

* The dog is a well recognized symbol of rebirth; hence for instance 'it is not uncommon to find, even in English cathedrals, recumbent statues of bishops with dogs as their footstools' (Smith, 1919, p. 163).

* In this connexion it may be of historical interest that Freud first became interested in the Devil in 1897, a few months after his own father's death (Jones, 1953).

1913), and its life-giving, death-averting and creative powers which precede knowledge of sex differentiation and sex function in procreation, both in the history of the individual and of mankind (Macalpine & Hunter, 1953), and which are prephallic (Smith, 1929). In this way Freud was able to attribute Schreber's psychosis simply to his struggle against passive homosexual drives directed first towards his father, then towards his physician Flechsig, and later transferred to God and the sun; and to describe the mechanism of Schreber's illness, paranoid schizophrenia, in terms of the classical Freudian psychoneurotic symptom formation, and later to call the painter's illness a neurosis.

(4) As Freud noted 'there is never any indication of the female genitalia' (454), nor as we noted is there ever any indication of the male genitalia. Nor is any mention made of homosexuality in the painter's diary and pictures, just as there is no mention of the father. While in Schreber's case homosexual interpretations were based on actual material offered by the patient, in the painter's case there is no homosexual material, and interpretations of homosexuality are purely theoretical and speculative.

(5) What then led Freud to see in the painter's illness only 'his struggle against accepting castration...against the feminine attitude to the father'? His interpretation of the painter's illness in terms of homosexual conflict and castration anxieties was based on 'two slight indications' (455) 'in the relation between the painter and the Devil' having 'a sexual reference' (454). First, 'the Devil's breasts'. We have already shown that the breasts belong to a procreative, not a sexual figure, an interpretation confirmed by Freud himself: 'The large breasts constitute the positive sexual characteristic of the mother, even at a time when the child is not familiar with the negative sign of womanhood, the absence of the penis' (456). Castration as used in psychoanalysis refers to 'loss of his own male genital', i.e. his penis; therefore fear of such loss, namely castration anxieties, cannot be aroused if the child is not yet aware that women have no penis. Motherhood at this stage is a positive state without negative implications for the boy. It appears therefore that Freud failed to distinguish between pregenital motherhood in which sexual differentiation is not involved, and mature womanhood implying a knowledge of genital differentiation in which reproduction is secondary. There is therefore no evidence of castration anxieties; the Devil's breasts belong to 'a time when the child is not familiar with the negative sign of womanhood'. At this stage of infantile phantasy life, the wish or phantasy of bearing a child does not imply loss of the boy's masculinity, but merely that a boy can have babies, a state incompatible with reality. The struggle then is not one against castration and being turned into a woman, but against a phantasy of being both male and female simultaneously, which is 'contrary to the order of things' (Schreber, 1903) and psychotic, because it implies unisexual procreation.

(6) The other 'slight indication' having 'a sexual reference' which caused Freud to interpret the painter's illness in terms of struggle against 'the feminine attitude to the father', was 'the part played by the number Nine' (453) in the painter's pacts with the Devil. 'The Bond with the Evil One was for nine years', and '*Nonies*—nine times—did the painter withstand the temptations of the Evil One before he fell' (453); and 'The number Nine...whatever its connexion directs our attention to a phantasy of pregnancy' (453). But Freud did not consider that these phantasies might exist in their own right, pathogenic in themselves, and independent of libidinal genital drives. As has been shown, however, there is no evidence to consider them anything else but primary, because there is no evidence of homosexual conflict from which they might have derived.

In summary, the significance of the number Nine is taken as a 'phantasy of bearing him a child' (455), and this in turn as proof of the existence as well as the result of passive homosexual drives. Apart from the circular reason-

ing thereby introduced, Freud was led to see the Devil only as 'superman, the father-figure', to ignore the equivocal gender of 'EX MORTE PARENTIS', and to explain the whole illness in terms of libidinal conflict.

PROCREATION PHANTASIES

We have shown that the evidence for passive homosexual wishes and castration anxieties in the painter's case is not convincing. But there is overwhelming evidence of primitive procreation phantasies, which Freud ignored in his analysis. We introduce the term procreation phantasies in order to emphasize their archaic, prephallic nature. Such phantasies are independent of active or passive homosexual drives because they derive from a time when there is as yet no realization of the different role of the sexes in reproduction, of male and female. Hence the emergence of such primitive procreation phantasies is accompanied by simultaneous confusion about, doubt in, or actual loss of mature sex identity; only at their most superficial, i.e. genital level, need conflict over homosexuality be involved.

The number Nine

Even the number Nine itself occurs significantly in three other connexions over and above those noted by Freud, quite apart from ample illustration in the rest of the painter's material of the emergence of procreation phantasies. First, the painter painted a series of nine pictures of his visions. Secondly, the interval between the commencement of symptoms of his first illness, August 1677, to his second arrival at Mariazell, May 1687, was nine months. Thirdly, he arrived at Mariazell for the first time on the fifth of the ninth month, received back the first pact at midnight of the eighth, that is on the ninth, of the ninth month, on the very birthday of the Holy Virgin Mother; and he received back the second pact the following year on the ninth of the fifth month 'at nine o'clock' (460).

The red and the black pact

Freud devoted almost one-quarter of his paper to unravelling the confusion about dates in the manuscript as to which pact with the Devil came first, the red in blood or the black in ink, without arriving at a satisfactory answer. This confusion, however, becomes readily understandable in terms of procreation phantasies of various levels of maturity becoming intermingled in the painter's mind. Thus the red pact may be taken as referring to procreation as a female and necessitating change of sex; the black pact would refer to intestinal procreation irrespective of sex and independent of it.

'The motivation of the Satanic pact'

Another point which puzzled Freud becomes clear when it is realized that the painter was primarily preoccupied with procreation phantasies: namely why 'this man should barter his soul, not for something the Devil shall afford him, but for a service which he shall himself render to the Devil' (445). The painter meant that through the Devil's art he would be able to bear a child, or rather he invoked the Devil's art to account for his feeling of bearing a child. Further that according to the wording of the pacts the painter pledged himself 'to be unto this lord even as a sonne of his bodie for 9 yeares' (446); if the Devil could have a son, then so could he. It is noteworthy that in exactly the same way Schreber had looked to his physician Flechsig and later to God to be instrumental in helping him to procreate, and 'delivering' him.

Pregenital material

There are further examples of pregenital procreation phantasies in the painter's diary. In one vision he records how he found himself 'in a . . . magnificent hall in which there stood a throne "built verie high with pieces of golde", near which the courtiers awaited the arrival of their king'. The painter was begged 'to ascend the throne, for they "would have him for to be their King"' (466). In another vision the Devil 'shows him a large yellow money-bag and a great ducat, promising to give him as many of these as he cares to have' (444) (see Pl. 1, fig. 4). In yet another a 'cavalier makes

a proposal to him concerning painting, promising him in return a goodly sum of money' (466), to which Freud appended a footnote saying 'this part is unintelligible to me'. It seems almost invidious to quote the many passages in other works in which Freud, particularly in the period 1900–10, discussed and interpreted exactly the same material as anal birth phantasies. In fact, the unconscious equation of money, faeces and child is an established psychoanalytic tenet.

Intra-uterine phantasies

Procreation, intra-uterine and rebirth phantasies are frequently found side by side; as primary processes of the unconscious having or being with child as well as being reborn are interchangeable. In the painter's case this is well illustrated by the following account of a vision recorded in his diary. He is taken to a 'stony rock, we slipped through an opening. Inside a roomy cave was an old man, overgrown and with a long beard; I asked who he was? My guide answered: that is a man who has lived sixty years in this cave and who in that time has never put a foot outside it. Again I asked: where does he get his food and sustenance from? He answered: he is fed every day by God's angels' (Payer-Thurn, 1924). Remembering the language of opposites of the unconscious, the 'overgrown old man with the long beard' may be said to represent an undergrown, hairless foetus. In the cave may be compared with 'The origin of the belief of the birth of mankind from split stones' (Smith, 1919) (see Pl. 2, fig. 6). The painter's naïve question about food is reminiscent of the child's question how a baby inside its mother gets its food. One might speculate further that the Devil's habit of 'doing things backwards or upside down' (Jones, 1910, p. 184) can be seen at work in '60 years', which would then be '90', another allusion to the duration of intra-uterine existence.

Significant also is the repeated mention of water, 'an essential part of any ritual (i.e. symbolic) rebirth' (Jones, 1923). The painter records that he could only be roused from his visions and convulsions by his sister splashing him and the room with Holy Water. At one stage he felt 'as if I were falling into water' (Payer-Thurn, 1924) (see background of lake in Pl. 1, fig. 1, and waterfall in Pl. 1, fig. 4).

Finally, it was not chance that took the painter to Mariazell. He insisted that he could only be freed by getting back this pact with the Devil, and 'nowhere else could he regain it but through the Most Blessed Virgin at Mariazell' (Payer-Thurn, 1924). Mariazell, Mary's cell, may be interpreted as another expression of an intra-uterine phantasy.

Course of illness

The painter's pictures

The emergence of increasingly archaic, pregenital and hence asexual and prephallic procreation phantasies, is vividly illustrated in the painter's pictures. This indeed is what gives the manuscript its unique value.

The illustrated title page (Pl. 3, fig. 9), in the form of a triptych, affords an overall view. On the left is the burgher, and seated next to him a young woman, obviously his wife, with the pact in her lap which she is writing. A black dog is running towards them. On the right, man, woman and dog have disappeared. In their place stands the Devil, the burgher's staff in his right hand, the pact previously held by the woman in his left; to his left is a young man gazing intently at him and handing over or reaching out for the pact, clearly the painter himself. His face and hat are reminiscent of the woman's; in his left hand he holds a rolled manuscript, perhaps the pictures.

In these two pictures the transition from father, mother and the birth symbol of the dog—trinity—to the composite mythological procreative figure of the Devil with whom the painter pacts, is plain. The Devil alone is further developed in the separate pictures and shown in various mythological shapes, becoming ever more terrifying (Pls. 1 and 2).

The centre piece of the title page represents the painter's redemption, the resolution of his illness. In the shrine at Mariazell the Holy

Virgin with the Child in her arms, before Her four kneeling monks, the painter in their midst and to the fore: the dragon appears in a sea of flames returning the pact.

The painter's diary

If these paintings are taken as illustrations of the painter's phantasies, a story is found to emerge which tallies with the available details of his illness from his diary and the records of the monks.

The illness started with a state of melancholia, severe anxiety, inability to work, 'frightful convulsions' (438) and 'extremely painful sensations' (441). These appeared shortly before his pact with the Devil was due to expire at the end of nine years. We have interpreted this as a procreation phantasy coming to term; in its psychological meaning the pact with the Devil is in the nature of an antedated rationalization and an attempt to account for the terrible expectations of impending life and death which the painter was experiencing.

The painter's pains and convulsions are significant, because they suggest the living through of birth phantasies, i.e. of giving birth, being born and hence also of dying and of rebirth. They recurred with increasing severity and duration until the acute stage of the first part of his illness ended, when the dragon returned the pact on the birthday of the Holy Virgin. Shortly afterwards he returned to Pottenbrunn 'in good cheer' (Payer-Thurn, 1924).

This temporary amelioration of symptoms may be interpreted as due to either an identification with the Holy Virgin of Immaculate Conception, or as an acknowledgement of the biological fact that in order to be able to bear children one has to be a woman. Schreber also improved when he was again able to realize this; he emerged from his psychosis with the delusion that he was indeed changing into a woman 'in order to bear children'. This was considerably nearer 'reality' and hence less psychotic, than earlier phantasies of male unisexual, i.e. parthenogenetic procreation, because it acknowledged genital differentiation. The painter depicted his male parthenogenetic procreation phantasies in the Devil's most horrible and terrifying shapes.

His symptoms recurred however, and he had to return to Mariazell 'having suffered much' (Payer-Thurn, 1924). This relapse was again explained by an antedated rationalization that there was yet a second pact which he had to redeem. When this one had also been returned to him he entered Holy Orders, and from then on lived in comparative peace. Although he was 'repeatedly tempted by the Evil One, who wished to strike a fresh pact with him' (442), he had no further major breakdown. He had once again been able to identify with men, surrendering his female identification to the Holy Mother, albeit or just because they were a fraternity of men who had renounced sexual reproduction: 'the triumph of the Holy Mother over Satan was beyond all question' (441). In between the first and last stages of his illness, the diary and other records show that the painter was preoccupied with ideas and body sensations of asexual procreation, of being born, reborn, giving birth and dying. These phantasies were not abstract, thought-out considerations, but bodily feelings and visions, that is to say hypochondriacal delusions and hallucinations actually experienced and lived through: 'What', asked Schreber, 'can be more definite than events lived through and felt on one's own body?' (Schreber, 1903, p. 151).

Comparison with Schreber

The content of Schreber's psychosis shows the same break-through of unconscious phantasies of giving birth, being born, reborn, dying, or being with child. Both were confused and uncertain about the sex to which they belonged and their procreative possibilities. In both the deepest and most pathogenic layer was found to be made up of male, unisexual, parthenogenetic procreation phantasies, and their emergence coincided with the most alienated, catatonic phase of the illness. In both, these archaic phantasies were not properly ver-

balizable, because they were originally body phantasies belonging to the pregenital and preverbal stage, and seem too disruptive even for the psychotic mind. Schreber said of his experiences that 'they cannot be put into words as they exceed human understanding' (Schreber, 1903, p. 2); the painter said 'It is impossible for me to put into words what has happened' (Payer-Thurn, 1924).

Both also lived through various stages of displaced pregnancies. Where Schreber had a worm, a soul-like creature, in his lungs, and his diaphragm was raised into his neck, the painter's Devil had a hunchback; where the Devil had worms and other undefinable structures issuing from his head (see particularly Pl. 1, fig. 4, Pl. 2, figs. 5–7), Schreber records how his skull went through many vicissitudes of being sawn to pieces, perforated, threads pulled through, nerves (souls) pulled out, human beings put in, etc. Schreber described souls leaving him from his mouth, the painter tore spirits out of his mouth which were sitting on his tongue (Payer-Thurn, 1924) (see Pl. 2, fig. 6). Both had transient paralyses of the lower limbs, painful convulsions, and states of inaccessibility.

Schreber emerged from two years of 'massive hallucinatory stupor, totally withdrawn, experiencing inconceivable physical tortures, negativistic and requiring forcible feeding' (Schreber, 1903, p. 462), with the delusion that he was very gradually turning into a woman, which accompanied him out of the mental hospital. This was 'the reconciliation', when 'according to the order of things' he accepted having to be changed into a woman in order to bear children, and 'from then on awaited divine impregnation' (Macalpine & Hunter, 1953). This change was visualized as being into a reproductive woman, hence his preoccupation with growing breasts, changes in the bony pelvis, and getting smaller. Freud interpreted this 'transformation into a woman' on a homosexual plane only, 'reconciled to playing the part of a female prostitute' towards God (Freud, 1911, p. 432), and ignored the fact that Schreber believed that with God's help simultaneous fertilization would take place 'similar to the Immaculate Conception' (Schreber, 1903, p. 4). The painter improved at the same juncture of his illness: namely when he submitted to the supremacy of the Holy Mother of Immaculate Conception and Her Infant, and gave up being the 'sonne of his bodie' (446) to the devil.

In summary: both Schreber and the painter improved when phantasies of unisexual, ambisexual, or asexual procreation receded, and they could again differentiate between male and female in the regained knowledge of the sex to which they belonged.

Discussion and conclusions

Schizophrenia

The symptomatology and content of these two patients' psychoses, autobiographically preserved, differ little from what is seen among psychotics to-day. Schizophrenics frequently, if not invariably, are in doubt as to the nature of their sex, experience and live through body phantasies of pregnancy, birth and rebirth; are concerned with religious matters, with God, the Son of God, and the Virgin, have delusions about the end of the world, and phantasies centring around death, life after death, birth, rebirth and resurrection. The influences in previous ages ascribed to the Devil, are nowadays put down to equally mysterious but more modern forces such as electricity and atomic and cosmic rays. One is therefore justified in discussing fundamental psychiatric issues arising out of these two cases.

Neurosis-psychosis

In present-day psychiatry the painter's symptoms, hallucinations, delusions, hypochondria, severe depression and inability to work, would lead to the diagnosis of psychosis. Both he and Schreber were however considered by Freud to be suffering from a neurosis, based on the breakthrough of unconscious, passive, homosexual wishes, i.e. submission to the father, and their illness the ensuing defensive struggle against the implied castration.

Discussion of the structure of the illness leads naturally to the question of diagnosis. The whole problem of psychiatric diagnosis and classification is at present in the melting pot (Hunter, 1954): the main point under discussion here is whether the structure of a psychosis is similar to that of a neurosis and to be explained in terms of the classical Freudian psychoneurotic symptom formation. Although Freud (1924) himself maintained the difference, there is much confusion: in the title he called Schreber 'a case of paranoia (dementia paranoides)' but in the text speaks of his illness as a narcissistic neurosis and of his hallucinations as 'hysterical mechanisms' (Freud, 1911, p. 464); in the 'A neurosis of demoniacal possession in the seventeenth century' he speaks of Schreber's psychosis and equates it with the painter's illness which both in title and text is called a neurosis. Of course, in order to do justice to Freud's use of psychiatric terminology and classification, one would have to consider them in their historical setting (Zilboorg, 1954).

Libidinal conflict

The problem of the differential diagnosis between neurosis and psychosis is not merely one of nomenclature, but fundamentally that of possible differences in their structure. We do not intend to discuss this vast problem here in detail, but only one aspect: that Freud extended to the psychoses his theory of psychoneurotic symptom formation. According to this, libidinal conflict on a genital level follows on opposition of super-ego to unapproved libidinal drives arising out of the Oedipus complex, both the positive toward the parent of the opposite sex, and the inverted toward the parent of the same sex. Freud attempted to explain psychotic symptom formation in the same terms, with paranoid delusions in particular being related to the inverted Oedipus situation, that is to say to conflict over unconscious homosexuality. This, as mentioned in the introduction, forms the theoretical basis of the present-day psychoanalytic approach to the psychoses. Psychosis is therefore explained in terms of a disturbance of relatively mature inter-personal relations, whether of love or hate. Whereas Freud demonstrated that conflict of this order underlies neurotic symptom formation, such proof is lacking for psychotic illness. As Winnicott (1953) pointed out: 'It is not so well known (and indeed it is still a matter for proof) that disturbances which can be recognized and labelled as psychotic have their origin in distortions in emotional development arising before the child has clearly become a whole person capable of total relationships with whole persons.'

We suggest the disturbance in psychotic illness is not primarily inter-personal, but intra-personal, i.e. endopsychic, and arises entirely within the person's mind, from his relation to himself and to his body, from a disturbance between his body and his mind.

Procreation phantasies

In both analyses the patients' pregnancy phantasies were considered by Freud only as arising out of the boy's attachment to the father and consequent upon homosexual drives: no attention was given to the possibility that such phantasies exist in their own right, independent of relationships with other persons, and hence also independent of castration fears and wishes. That Freud did not mention pregenital procreation phantasies is all the more surprising as we owe to him insight into early phantasies and 'sexual theories' of baby making. He had found that infantile sex theories assume 'that babies come out of the anus; the second theory which follows logically from the first is that men can have babies just as well as women' (Freud, 1909). Hence 'If babies are born through the anus then a man can give birth just as well as a woman. A boy can therefore fancy that he too has children of his own, without our needing to accuse him of feminine inclinations' (Freud, 1908).

Far from abandoning these views they were restated by Brunswick (1940) in an 'exhaus-

both boy and girl' written in 'collaboration with Freud'. She stressed that 'the original, asexual, "harmless" wish for a baby arises very early, is based wholly on the primitive identification of the child of either sex with the active mother...is neither active nor passive....Contrary to our earlier ideas, the penis wish is not exchanged for the baby wish which, as we have seen, has indeed long preceded it.'

But little use has been made of these findings in clinical psychoanalysis, even by Freud himself. Pregnancy phantasies in men are still considered as arising in consequence of, or as cover for, passive homosexual wishes, as perusal of the scant literature on this subject shows (Macalpine & Hunter, 1953). In women archaic procreation phantasies are rarely reported, further confirmation that they are tacitly paralleled to mature, genital, uterine pregnancies, and as such are supposed to be precursors of normal childbearing, a belief contradicted by, for instance, cases of pseudocyesis, and the frequent occurrence of intestinal and anal pregnancy and birth phantasies in psychotic women. That such phantasies, when expressed and appreciated only in terms of physical sensations, i.e. hypochondria, are often labelled hysterical, when in fact they are psychotic body phantasies, provides added evidence of the neglect of pregenital phantasies in favour of neurotic libidinal drives (Macalpine, 1953*a*).

Physical symptoms—hypochondriacal delusions

Archaic procreation phantasies are rarely uncovered, even in lengthy psychoanalyses, whereas the homosexual, i.e. genital, neurotic and hence more superficial aspects are always reported. It is significant also that when impregnation phantasies, such as the common delusion of poisoning and refusal of food which represent fear of impregnation phantasies, are mentioned in psychoanalytic literature, they are rarely followed up by interpretation of archaic procreation phantasies which must inevitably accompany them. There are two reasons for this. First, because such phantasies are extremely disruptive. Even in hospitalized psychotics phantasies of birth and rebirth become conscious and verbalized more easily in female patients; in male patients they often remain confined to somatic hypochondriacal delusions; their conscious appreciation seems incompatible with even psychotic mental life. Secondly, because these phantasies are lived through and therefore expressed in physical symptoms, in the painter's case in pains, paralyses and convulsions; in Schreber's Memoirs 'descriptions of his physical tortures play as large a part as his delusional deliberations, and indeed merge with them' (Macalpine & Hunter, 1953).

Hysteria and actual-neurosis

But hypochondriacal somatic symptoms have as yet no legitimate place in psychoanalytic theory or practice. They are classed either as hysterical or actual-neurotic, and in practice frequently misdiagnosed as organic illness. As hysteria they are considered to arise from mature neurotic conflict arising from the Oedipus complex, by opposition of superego to disapproved libidinal drives. The underlying conflict, being on a genital level and capable of being warded off, must therefore be potentially capable of becoming conscious, that is to say verbalizable. Homosexual urges based on the inverted Oedipus-situation, and warded off by the mechanism of projection are of this order. If classed as actual-neuroses, symptoms are said to 'arise through direct toxic injury...psychoanalysis...can supply little towards elucidation of them' because they 'have no "meaning", no signification in the mind' (Freud, 1917). In brief: hypochondriacal symptoms are still neglected as clues to the content of mental illness, in favour of the more dramatic, more easily understood and perhaps less disturbing psychic symptoms (Macalpine, 1953*b*).

Resistance to procreation phantasies

In this way earlier, more primitive procreation phantasies mostly go undetected because they reappear in their original form as body

phantasies. Hence, irrespective of the length of analysis, they cannot be expected to be verbalized. In a case reported by Gillespie (1952), for instance, the patient showed 'in the fourth year of analysis...a strong tendency to identification with the pregnant mother—he thought he was getting very fat, growing breasts and turning into a woman'. Significantly, and supporting our thesis, 'interpretations relating to this pregnancy' in terms of homosexual wishes and castration anxieties 'have met with the most violent resistance'. Another patient referred to in the same paper broke off analysis at the identical juncture.

Psychotherapeutic implications

It is common experience that not only do homosexual interpretations not improve paranoid schizophrenic patients, but they frequently make them worse.

Knight (1940) also noted that in the treatment of paranoid patients interpretation of 'homosexual wishes...cautiously and tactfully' given 'not only does not relieve the patient but often makes him more paranoid than ever'. He therefore raised the important question 'Why does the developing paranoiac react so frantically to the dimly perceived homosexual drive in himself? Is the homosexual wish so much more intense in him than it is in other men who successfully repress it...or is...this need to deny so terrifically strong?' The selfsame question exercised Ferenczi's (1911) mind: 'in paranoia it is mainly a question of recathexis with unsublimated libido of homosexual love objects which the ego wards off by projection. This statement, however, leads us to the bigger problem of "choice of neurosis", i.e. under what conditions does infantile bisexuality, ambisexuality, lead respectively to normal heterosexuality, to homosexual perversion or to paranoia.' Nunberg (1938) sounded a similar note of reservation: 'The question why it is that out of the same fundamental situation a paranoia develops in one instance and in another does not, must remain unanswered for the present.'

One may therefore conclude that neither in theory nor in therapy is projection of and conflict over unconscious homosexuality as firmly established as the cause of paranoid illness as is generally believed. We have attempted to show that homosexual conflict is secondary and superficial to deeper, more archaic procreation phantasies arising irrespective of genital drives, leading to or being accompanied by loss of mature sex identity. Indeed conflict over conscious or unconscious homosexuality may, as in the painter's case, be absent altogether. We do not intend to draw here on our own clinical experience, but only to mention that we have repeatedly encountered transvestites who showed no evidence of homosexual conflict, the phantasy of being or wishing to be a woman being the primary disturbance. Schizophrenic patients frequently show identification with the opposite sex, not always verbalized but expressed in altered body sensation or function. Interpretations of such body phantasies in terms of doubt and uncertainty and hence anxiety about their own sex identity often lead to amelioration of symptoms, sometimes almost immediately. Homosexual interpretations far from reducing anxiety, increase the patient's doubt and uncertainty about his sex identity, and in this way tend to reinforce and fortify emerging procreation phantasies. It is to be expected from our findings, that a male paranoid patient, already in doubt about his sex identity and fearful of a change of sex, would be made even more uncertain, more anxious and more deluded by inexact interpretation of passive homosexual wishes.

In summary, archaic, pregenital procreation phantasies with concomitant doubt and uncertainty in sex identity have not been appreciated in the pathogenesis of schizophrenic illness, of which paranoia forms a part, for three reasons: first, because such phantasies consciously appreciated are extremely disruptive of mental life; secondly, because they most commonly emerge in a hypochondriacal form, indeed are hypochondriasis, the psychic content of which has for reasons given earlier

been neglected in psychoanalysis; thirdly, because of the overstressing of neurotic, homosexual aspects in terms of mature libidinal conflict.

Secondary gain

Freud himself seemed dissatisfied with his explanation of the painter's illness in terms of conflict over homosexuality and castration anxiety only: 'Not even our painter's wretched situation in life would have induced his neurosis of demoniacal possession, had not his material necessities served to intensify the longing for his father...the very serious, if banal, anxiety of the struggle for existence' (471). Freud seemed aware that conflict over unconscious homosexuality could not fully cover the case. In order to compensate for this deficiency he made much of the secondary gain motivating the painter's illness, even accounting for the cure: 'All he wanted was security in life, at first with the help of Satan but at the cost of eternal bliss; then, when this failed and had to be abandoned, with the Church's help but at the cost of his freedom and most of the pleasures of life' (470). The part thus assigned to 'paranosic or epinosic gain', Freud found excessive even for a neurosis: 'In a far greater number of cases the neurosis is more of a thing apart, more independent of the claims of self-preservation and maintenance' (471). In any case, secondary (social) gain plays no part in the development of psychotic illness.

Libido-theory

If we are correct in our finding that repressed unconscious homosexuality does not account for schizophrenic illness or its paranoid form, the question must ultimately be raised whether the explanation of the illness in terms of emergence of archaic, pregenital, procreation phantasies with concomitant loss of sex identity is in accord with, or runs counter to the libido theory. Freud himself opened up this question at the end of his Schreber study when he remarked that the libido theory, as it then stood, distinguished between 'egoistic instincts and a sexual instinct...aiming...at self-preservation and...at the preservation of the species' (Freud, 1911, p. 461). Fairbairn's (1943) criticism of Freud's 'Neurosis of demoniacal possession' started from 'the inadequacy of the classic conception that libido is primarily pleasure-seeking'. It seems to us that further study of the psychoses may well force this question, and that the lack of therapeutic success with psychotic patients, as well as the absence of advance in theory, may be due to adherence to the libido theory with its emphasis on libidinal wish-fulfilment in psychotic symptom formation.

SUMMARY

1. Freud's 'A neurosis of demoniacal possession in the seventeenth century' was written in confirmation of his earlier 'Psycho-analytic notes upon an autobiographical account of a case of paranoia (dementia paranoides)', often referred to as the Schreber case. Together they form the basis of the psychoanalytic approach to schizophrenia in general, and paranoid symptom formation in particular.

2. The 'motivational' factor in both is held to be conflict over repressed homosexuality, which is unacceptable because it implies castration. The illness is therefore explained as the struggle against castration.

3. Re-examination of the original material on which Freud's analysis was based, namely the painter's diary and pictures of his visions of the Devil and the records of the monks, show little if any evidence of homosexuality.

4. In contrast, there is ample evidence of the primary emergence of archaic, pregenital procreation phantasies with concomitant loss of, or doubt in, sex identity, arising independently of homosexual drives.

5. The painter therefore showed the two pathognomonic features of schizophrenia and confirms our earlier almost identical findings in a re-examination of Schreber's Memoirs.

6. Confusion of the terms neurosis and psychosis is discussed, and the bias in favour of neurosis in psychoanalytic theory of symptom formation. The psychoanalytic basis of the

psychoses is an extension of psychoneurotic symptom formation, centring on the Oedipus complex and so based on relatively mature interpersonal relationships.

7. It is suggested that psychotic illness is more primitive and arises primarily as a disturbance in the patient's relation to himself, his mind and his body. Hence the prevalence of somatic symptoms, i.e. hypochondriasis.

8. The over-emphasis on interpersonal relationships in psychotic symptom formation to the neglect of much earlier and more primitive intra-personal disturbances is traced to: (*a*) the neglect of somatic hypochondriacal symptoms in psychoanalytic theory and practice; (*b*) to pregnancy phantasies being considered to arise from, and hence proving the existence of unconscious passive homosexual drives; (*c*) the fact that these archaic procreation phantasies are extremely disruptive, much more so than appreciation of homosexuality and interpretation of delusions and hallucinations. They imply an absolute ambisexuality, a balanced imbalance of sex regularly if not invariably found in schizophrenics.

9. Therapeutic failure with psychoanalysis and its implications in the light of our findings are briefly discussed.

10. In conclusion, the question is raised in how far adherence to the libido theory has impeded progress in the psychopathology and psychotherapy of the psychoses.

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EXPLANATION OF PLATES

(Translations of the Painter's own legends to his pictures.)

PLATE 1

Fig. 1. Firstly he appeared to me in his present form as a burgher and with him a black dog, asking me what made me so distraught and sad; he would help me out of my plight; if I would give a pledge with ink to be his son he would give me all help and assist me.

Fig. 2. The next time he appeared to me or came in such a shape and forced me to subscribe with my own blood in order to verify the other pact, which out of fright I did.

Fig. 3. The third time within eighteen months he appeared in this disgusting shape with a book in his hand which was full of sorcery and black magic; I should amuse myself with it and dispel the melancholy.

Fig. 4. The fourth time this loathsome shape is the one in which he appeared with a large yellow money bag and showing me a big ducat, telling me that he would now give me this big bag and as many more as I would wish or ask for; all should be according to my wishes at all times—but I did not accept it.

PLATE 2

Fig. 5. The fifth time he appeared in such gruesome shape and asked why I had burnt the above book; I should return it to him since I had not made use of it; otherwise he would tear me to pieces.

Fig. 6. The sixth time he appeared in such horrifying shape and persuaded me that I should let myself be entertained (or sustained—*unterhalten*), to which on his pressing I conceded, but which I did not continue for more than three days and dissolved it again.

Fig. 7. The seventh time he came in such terrifying shape and started to plague me daily at Pottenbrunn and tormented me that I should not perform my holy duties in my cell or in the Holy Shrine; and he wanted to prevent my soul's salvation.

Fig. 8. The eighth time he appeared in the horrifying shape of a dragon after the exorcism in the Holy Chapel and brought the pact which I had signed with my blood; and he dropped it through the lowest window on the right, and the whole Sacred Shrine appeared filled with flames.

PLATE 3

Illustrated Title Page.


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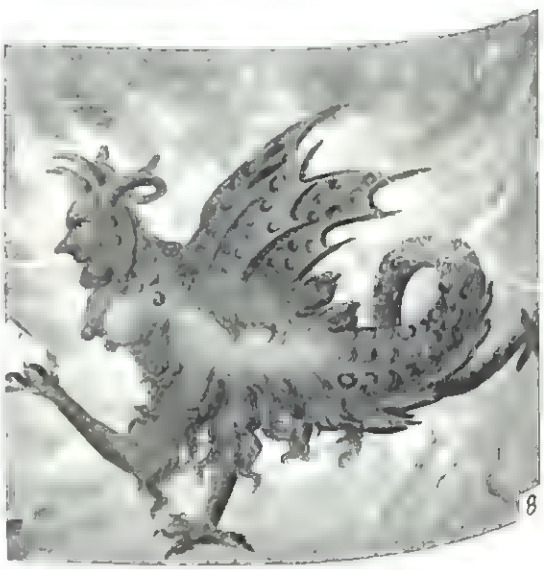
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MACALPINE AND HUNTER—PSYCHOANALYTIC THEORY OF PSYCHOSIS

THE ORIGINS AND THE STATUS OF DYNAMIC PSYCHIATRY*

By E. STENGEL†

I wish to thank you for having elected me chairman of this Section which is a most important meeting ground for all those concerned with medical psychology. To direct its proceedings is indeed a great honour and responsibility.

A chairman's address, if one comes to think of it, is a very formidable task. Being the only item on the programme, not leavened by a discussion, it ought to be both substantial and digestible. It should be thoughtful and provocative, another difficult combination. It should be clear and lucid, and give rise only to that sort of misunderstanding, the removal of which is productive of progress. It should tell the members where the man stands in some controversial matter of general concern. If, in addition, it reveals his limitations and prejudices, this is all to the good. The custom for a chairman's address not to be followed by a discussion is open to a variety of interpretations. It might mean that the address be itself a contribution to a discussion which extends not over an evening but over an era. My interpretation is supported by two facts: the strong impression of continuity we experience when going through a series of chairman's addresses, and the frequency with which the addresses of other chairmen of the same or allied societies are referred to on these occasions.

The selection of a subject is as a rule not a great problem for the chairman, especially if it is his first address of this kind. He has not really much choice because he has to say what his heart is full of, which is usually a great deal. Addresses from the chair are known to have a beneficial cathartic effect on those delivering them. But the choice of title is often given much thought, occasionally to the detriment of the address itself. Some of those titles are so original and mystifying that the address is almost bound to be an anticlimax. You will agree that I have taken no such risk. You may remember, though, that some of our colleagues see red when they hear psychiatry called dynamic, and Dr Desmond Curran (1952), also in an address from the chair, remarked that if there was a word which should be paid overtime, it was the term 'dynamic'. I do not share all the sentiments from which his attitude towards that term stems, but I do agree with him that it is being used much too loosely nowadays. Also, it has acquired a general connotation in the vernacular, especially in America, where it has come to stand for almost everything that is alive, active and laudable. Not to be dynamic means to be static, and this is an insult if used for any living person, or outlook, or activity not solely controlled by the law of gravity. Nevertheless, the term has established itself for the time being. But scientific terms are tools which need overhauling from time to time, and this is one of the tasks I have set myself for tonight in discussing the status of dynamic psychiatry. It has been understood to be psychiatry informed by psychoanalysis, a psychiatry in which psychological factors have largely taken the place previously held by heredity or hypothetical organic causes. It has rightly or wrongly become associated with an exclusive environmentalist approach to the aetiology of mental disorders.

In setting out to review the meaning and usefulness of a concept a historical survey often proves illuminating. By tracing a term back to its origins and by following its vicissitudes we may hope to arrive at a fuller under-

* An Address from the Chair to the Medical Section of the British Psychological Society on 27 January 1954.

† Reader in Psychiatry in the University of London; Honorary Physician, Bethlem Royal Hospital and the Maudsley Hospital.

standing of its significance than we can obtain by simply accepting its present-day usage which may be subject to change. How did the terms 'dynamic' and 'dynamics' find their way into medical psychology? We are now better equipped to answer this question than we were even a short time ago. The last few years have brought a crop of historical studies about the origin of psychoanalysis. New material from this period has come to light and we have Ernest Jones's (1953) masterly biography of Freud covering the early stages of his work.

It is worth mentioning that long before the term 'dynamic' had been borrowed from physics by physiology, whence it found its way into psychology, it had been used by philosophers in a psychological sense. Epicurus and his pupils distinguished between dynamic and static pleasures; dynamic pleasures were those attained with effort and pain, the sexual being one of the most dynamic of them. Static pleasures consisted in states of equilibrium, some of them gained through gratification of dynamic pleasures. The pleasure principle of the Epicureans, and the philosophy of life derived from it, were, as you know, thoroughly unbiological, but their outlook was productive of a good deal of psychological insight.

About the origin of Freud's dynamic concepts there is no doubt; they can be traced back via Meynert, the great nineteenth-century neuro-psychiatrist, to Herbart's and Fechner's psychophysical theories, in which the psychic was regarded as a function of the physical, a relationship which they hoped it should be possible some day to express in mathematical terms. Freud's period of medical training coincided with great advances in physiology, and he devoted a considerable time to research in this field. His teacher, Brücke, spoke of the transformation and interplay of physical forces in the living organism in terms similar to those which Freud later used of mental forces. In his neuro-anatomical studies Freud became familiar with the principles of development and the permanence of early structures throughout life. The dynamics therefore, with which he became acquainted in those years, were those of physiology, which were really those of physics. The various stages by which psychodynamics developed from them are known to those who have read Ernest Jones. There is nothing I can add, except perhaps to point out the interesting sequence and interplay of different trends of thought which in succession influenced Freud. The immense potentialities of the psychological factor were brought home to him by Charcot. The study of aphasia (1891) marks another important step in the development towards psychoanalysis. I do not intend to repeat in detail what I said about this work on another occasion (1954). I shall emphasize only those aspects which are relevant here. Freud's encounter with the concepts of Hughlings Jackson, through his study of the aphasias, is important because they appear to have contributed to the foundations of psychoanalytic theory. But apart from this, they have a claim on our attention also because Hughlings Jackson was nearer to a dynamic theory of behaviour and behaviour disorders than anybody else before Freud. The realization of this should help us to understand that part of Freud's contribution to psychology and psychopathology which was all his own. The study of aphasia also demonstrates to us how Freud freed himself from concepts which nowadays might be called static. It started with the problem of the localization of the functions of speech. The question was this: could the speech disorders following brain lesions be explained by the assumption that certain functions were localized in circumscribed areas of the brain, the lesion of which would cause loss of those functions? Leading authorities maintained that those functions resided in certain areas of the brain like hereditary life tenants. Freud rejected these views emphatically. Without denying the importance of localization, he insisted that speech disorders could be understood only if one considered the tendency of the whole of the structures involved to change their mode of function under the impact of damage or stress. The most important of these functional peculiarities was their tendency to revert to earlier, more primitive patterns of

activity. Here the concept of regression as applied to mental activities made its first appearance in Freud's writings.

Freud severely criticized the confusion of psychological with physiological processes. He expressly accepted the doctrine of the psycho-physical parallelism according to which the physical and the psychic are dependent concomitants each to be studied separately. Both the concept of regression in its application to mental activities, and that of the psycho-physical parallelism, Freud had adopted from Hughlings Jackson who had become acquainted with them through the teachings of Herbert Spencer.

You note that in speaking of the functional peculiarities of the speech apparatus Freud did not envisage function as independent of structure and the term speech apparatus was used with a double meaning: for the organic substrate, and for the hierarchical organization of the functions of speech. The speech apparatus looks like a forerunner of the mental apparatus of later theories. It was the first of the concepts linking the physical with the psychic, which were to play such an important part in psychoanalysis. Freud did not use the term dynamic in that study, but when he speaks of the functional peculiarities of the speech apparatus he means what nowadays would be called its dynamics. He used the term static on one occasion when expressing the view that the physiological correlate of an idea was nothing static but in the nature of a process spreading over a wide area of the brain.

Considering Freud's later researches, the closing sentence of the aphasia study is significant: 'It appears to us that the importance of the factor of localization has been overrated and that we should be well advised to concern ourselves with the functional states of the speech apparatus.' This sentence contained the seeds of much of his later work.

In reviewing the origins of dynamic concepts it is of interest to consider those of Jackson (1931), some of which only could have been known to Freud. Jackson used the terms dynamics and statics in a very definite sense: anatomy, he said, was concerned with the statics of the nervous system, physiology with its dynamics, that is, with its function. Jackson's views on mental disorders are rarely referred to, because he does not go beyond stating general principles. Throughout he adhered to a physiological approach. He declared that as the result of damage to the nervous system no new patterns of behaviour emerged, but that previous ones were released which normally remained unconscious. The dynamic relationship between the higher and lower levels of 'nervous arrangements' was expressed in terms not unlike those later used by psychoanalysts for the relationship between the parts of the personality. Evolution of function in the individual and in the species meant 'adding on' and 'keeping down', dissolution meant 'taking off' and 'letting go'. Jackson was fond of dramatizing the effects of changes in the functional relationship between the various levels of the nervous system. To explain what happened in case of damage to the highest structural level, he used the following analogy: 'If the governing body of this country were destroyed suddenly, we should have two causes for lamentation: firstly, the loss of the services of eminent men, secondly, the anarchy of the now uncontrolled people.' Compare this with the following sentence: 'Mental morbidity represents, in the organic just as in the psychogenic sense, the triumph of the imperfectly controlled unconscious impulses.' This was written by Ernest Jones forty-five years later (1913).

To Jackson neurological symptoms were the outcome of conflicting tendencies charged with nervous energy. Referring to abnormal patterns of speech he said: 'In all cases it appears that what becomes conscious survives at the end of a conflict.' This idea is reminiscent of the psychoanalytic notion of the origin of the neurotic symptom.

Like every biological concept which views life in terms of energy and its discharges, Jackson's theory had to postulate resistance. 'Centres', he states, 'are not only reservoirs of energy, but also resisting positions.'

Here we have a framework of concepts very similar to that evolved by Freud. Their potentialities for the understanding of behaviour did not escape Jackson, and he made some references to such an application. He recognized the regressive character of mental disorders, and he spoke of the physiological insanity of the dream. However, his attitude to psychiatric research precluded him from making any contribution in that field beyond the stating of general principles, which have remained practically unknown among psychiatrists. It is interesting to compare Jackson's attitude with that of Freud who started from similar premises.

Jackson stated emphatically, on many occasions, that the physician's concern was with the body only, not with the mind. 'It is exceedingly important to get rid of the psychological implications which the convenient expression "diseases of the mind" has. Our concern with mind is indirect.' Or, 'I urge again: our concern as physicians is simply to get to know what is wrong with the nervous system.' And finally, 'Our concern as medical men is with the body. If there be such a thing as a disease of the mind we can do nothing for it.' Jackson made it quite clear that all these exhortations applied also to the so-called alienist physician. Jackson's refusal to concern himself with the mind cannot be attributed to his insistence on the separate treatment of the physical and mental. This was, in fact, the ideal premise for a medical psychology. There is much that is irrational in this attitude, which was shared by most of his colleagues, even by those more intimately concerned with mental illness than himself, for instance by Henry Maudsley (1867). And these views are still held by the majority of neurologists today. The contrast between them and those held by present-day psychiatrists, whatever their attitude to psychoanalysis, is evidence of what Zilboorg & Henry (1941) called the second psychiatric revolution.

There is no reason to believe that Freud knew of Jackson's view that the mind was not the physician's concern. But there is definite evidence that over a short period Freud disregarded Jackson's warning against a confusion of the physical with the psychic, and that he thought along lines which he had criticized and abrogated when, in his aphasia study, he called himself an adept of Hughlings Jackson. I am referring to an episode which has only recently come to our knowledge. In 1895, four years after the publication of the aphasia study, Freud wrote a draft of a physiological psychology which, together with a series of letters, was published in the original German in 1950, and is shortly going to appear in an English translation (see Freud, 1895). Ernest Jones has written an appraisal of this essay in his biography of Freud. It is of considerable interest for those concerned with the development of Freud's concepts. In that draft no trace of Jackson's influence can be found. It was, as far as the relationship of mental to physical processes was concerned, a relapse back to Meynert's way of thinking which Freud had so severely criticized. Mental processes were viewed as physical and expressed in the language of anatomy and physiology. The draft was written within a few days, most of it on a railway journey. Freud quickly dissociated himself from it and never set eyes on it again. In a letter referring to it he said that he could not understand the state of mind in which he had written it, and he expressly returned to the principle that the physical and the mental had to be studied separately, as implied in the doctrine of psychophysical parallelism.

Although the editors of the draft made it quite clear that the manuscript can claim historical interest only, it has already been declared the most important clue for the understanding of the whole of psychoanalysis. It helped a diligent medical student to win a prize at the University of Heidelberg for demonstrating that Freud had never left the folds of physiology and neurology (Spehlman, 1953). And at a recent meeting of the General Section of this Society, it was referred to as if it were one of the most important of Freud's collected works, the audience being left in ignorance of the fact that it was a manu-

script, or rather the rough draft of a manuscript, discarded and disowned by its author almost immediately he had written it. At any rate, the publication of that manuscript, together with the awakening of interest in Freud's early writings, has at last given the discussion about psychoanalysis a new and unexpected turn: Freud has, at this belated hour, been recognized as a physiologist in psychologist's clothing. What a change from the criticism that he had completely ignored the brain!

The episode of the draft, or 'project', as the translators named it, can be regarded as a stage in Freud's struggle with the same difficulties that had rendered Jackson's and Maudsley's valuable concepts, which could have served as a basis for a clinical psychopathology, barren blueprints. How did Freud attempt to cope with these difficulties? How far did he keep to his averred intention of respecting the doctrine of psychophysical parallelism and of treating the physical and the psychic separately? The way in which he dealt with this problem was highly significant. First of all, though gradually freeing himself from the temptation to describe the psychic in material terms, he did, in his instinct theory, take into account that the physical and the psychic were not independent but dependent concomitants. This was the decisive step which allowed him to study mental processes without losing contact with biology. Furthermore, having to decide on a language in which to describe mental activities, he transplanted some physiological terms into psychopathology, using them as models rather than in their original meanings. This procedure is on principle open to criticism, but it served him well and enabled him to make discoveries in areas where another language might have been less helpful. We know how he came to choose that particular language. There is nothing sacrosanct about it. The view has been expressed that psychoanalytical propositions might benefit from being translated into terms of learning theory. This would be an interesting undertaking. But it seems doubtful to me whether any language using verbal symbols can ever completely avoid expressing the psychic in physical terms. After all, verbal language is a means of bringing about changes in our physical environment, internal and external, and not specially fitted for the symbolic representation of mental events.

Why is it that psychoanalysis was, and still is, accused of ignoring the nervous system, although Freud, Ernest Jones, and other psychoanalysts made frequent references to the structural basis of mental processes and to the role of heredity and constitution? However, in their method of investigation and treatment they had to insist on a strict separation of the psychic and the somatic. Psychoanalysts were urged to concern themselves with the psychic only, in terms similar to those with which Hughlings Jackson urged his colleagues to steer clear of the mind. But, as Dr Sutherland (1953) pointed out, the psychoanalyst's apparent or real lack of concern with the body has not been so serious a matter as the physician's phobia of the mind, because in our time the body has not been in danger of being neglected, though the mind has, at least among the physicians. It is nevertheless true that going through the writings of medical psychologists one sometimes gets the impression that the mind is a closed system, drawing all its energies from itself. Nothing could be further from Freud's basic concepts. But that particular misunderstanding must have been responsible for a concept of dynamic psychiatry which implies that generally mental disorders are based on psychological influences and motivations. Of only a section of mental disorders can we, in fact, say with some confidence that they fit into that definition.

There are many reasons why this kind of dynamic psychiatry is incompatible with the basic concepts of psychoanalysis, which by their very nature preclude a purely environmentalist approach to the study of human behaviour. In fact psychoanalysis, in emphasizing the role of instinct, may rightly claim that it has a great deal to offer to the study of the roots of behaviour to which we are all heir, i.e. to heredity and innate en-

dowment. And some of the work of those psychoanalysts who claim to know about the psychological processes prevailing in the first months of life has been regarded as a contribution to the knowledge of constitution. This is a legitimate development. One could well imagine a stage in which psychoanalytical research will be so deeply preoccupied with the exploration of those darkest areas of the individual's past, having perhaps improved its tools for exploring them, that the study of environmental influences will be left to others, perhaps to the geneticists, who have just emerged from their twin studies convinced believers in the importance of environmental factors in the origin of mental disorders. But seriously, would it not be the crowning triumph of a comprehensive dynamic view of human behaviour if at least some psychoanalysts, knowing that they were doing so, turned to the study of innate factors, and at least some geneticists to the study of environmental influences? Such a development would be fully in keeping with Freud's basic premises. Beginnings towards a fruitful combination of these two approaches inherent in psychoanalysis can be discerned here and there. I remind you of Hartmann's study (1934), Van der Waals' address (1948), and Dorothy Burlingham's observations (1952) on identical twins. At any rate, it makes perfectly good sense when in the most recent text-book of clinical genetics (see Sorsby, 1953) we find among the chapters dealing with basic principles one headed 'Genetic disease as a dynamic process'. It is stated there: 'Genetically determined diseases are not unalterable. They are due to the interaction between genetic and environmental factors.'

You may ask what all this has to do with the origin and the status of dynamic psychiatry? A great deal. Because there is a widespread belief that psychiatry ceases to be dynamic the moment it takes into consideration innate factors or changes of behaviour due to brain lesions. Nothing could be more erroneous. The manifestations of these factors are only too forceful to be overlooked or ignored.

Too narrow a conception of dynamic psychiatry is to be deprecated because it tends to prejudge fundamental issues. Or ought we to have a static psychiatry also, besides a dynamic one? Obviously we cannot have that. The very name would be impossible. But let us not be too sure. Homeostasis is in the air, and some of these days a clever modifier may spring on us, if not a static, at least a homeostatic psychiatry.

You may feel that I have already made my dislike of at least one of the current types of dynamic psychiatry sufficiently clear, and that there is no need for further arguments. However, there is one more which I have to unburden myself of. It concerns the relationship between descriptive and dynamic psychiatry. The idea that they are incompatible has, I think, done more harm than any other notion which grew out of the bad relationship between official psychiatry and psychoanalysis in its 'heroic' period. To regard careful description as inessential is bound to create the notion that the form a mental disorder takes in an individual is only a manifestation of a personal whim, not to be taken much notice of. The erroneous belief that description in behavioural and phenomenological terms has been superseded by psychodynamic formulation is responsible for the poor obversational power of many of our young colleagues. We obviously need both: careful clinical description and dynamic formulation. We must admit, though, that the number of processes, or mental mechanisms, or 'dynamisms', known to us is much too small to do justice to the great variety of mental abnormalities. Let us not forget the masterly descriptions of abnormal behaviour that we owe to some psychoanalysts. They rank among the lasting contributions to psychiatry, even if some of the interpretations of the phenomena should not stand the test of time. Many of these observations, it is true, would not have been made had the observers not set out with certain dynamic hypotheses, but this only serves to show that the psychiatrist who knows about mental processes is in a much better position as an observer than the one who does not know about them.

I have made it clear that I reject a definition of dynamic psychiatry which threatens to constrict the view of the student of mental disorder. Everything that determines mental functions either acts as a force, or, equally important from the dynamic point of view, resists force. To limit the concept of psychodynamics to the study of psychogenic environmental factors would be a fateful error and a complete misunderstanding of the basic concepts of psychoanalysis. According to Freud (1900), 'illnesses, those at least called functional, are to be explained on a dynamic basis, by the strengthening and weakening of the various components in the interplay of forces, so many of whose effects are hidden from view while functions are normal'. There are many ways in which those forces may be weakened, and every one of them is of interest to the psychiatrist. I want to see the term 'dynamic' used for a special approach rather than for the whole of psychiatry. This is what Ernest Jones (1913) had in mind when he said that psychoanalysis had provided psychiatry with an interpretative, a dynamic and a genetic (meaning developmental) point of view. Similarly, Hartmann & Kris (1945) proposed to distinguish between dynamic and genetic propositions in psychoanalysis. Used in this way the term has a definite technical connotation which makes it very useful.

The dynamic approach has already transformed psychiatry in many parts of the world. There is no field in the study of behaviour which it has not fertilized. Considering its importance it has in many places not been given a fair chance to prove its worth. But there has been some progress also. I should like to prove this by referring to the address delivered from the Chair of this Section by Emanuel Miller eighteen years ago (1936). It was a brilliant and delightful example of the cathartic variety. Surveying the psychiatric scene in London in a critical mood, and commenting on the schism between psychoanalysis and psychiatry, the speaker remarked: 'The thunder of the Freudian Olympus is after all no louder than the thunder of Denmark Hill'.* You need only look at the situation to-day to realize how much has changed in that short space of time. The Olympians have come down to earth and are mixing freely with other mortals. Some of them are ascending Denmark Hill in regular intervals, on a sessional basis. No thunder is coming from that direction these days, but rather a rumbling of voices, speaking many languages; and the tale goes that the nearer you come the more difficult they are to make out. And this is not surprising. There has never been a time when so many different concepts and methods were applied in the service of psychiatry as are to-day. They are working concomitantly, but unfortunately much too independently of each other. The psychodynamic approach ought to play a decisive role in the task of co-ordination and integration.

* The speaker referred to an address from the Chair delivered by the late Professor E. Mapother, the then Medical Director of the Maudsley Hospital, which is situated on Denmark Hill, an elevation in the southern part of London.

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MIND AND ITS RELATION TO THE PSYCHE-SOMA*

By D. W. WINNICOTT†

'To ascertain what exactly comprises the irreducible mental elements, particularly those of a dynamic nature, constitutes in my opinion one of our most fascinating aims. These elements would necessarily have a somatic and probably a neurological equivalent, and in that way we should by scientific method have closely narrowed the age-old gap between mind and body. I venture to predict that then the antithesis which has baffled all the philosophers will be found to be based on an illusion. In other words, *I do not think that the mind really exists as an entity*—possibly a startling thing for a psychologist to say [my italics]. When we talk of the mind influencing the body or the body influencing the mind we are merely using a convenient shorthand for a more cumbrous phrase. . . .' (Jones, 1946.)

I give Ernest Jones in the form of a quotation by Scott because it was actually this paper of Scott's (1949) which stimulated me to try to sort out my own ideas on this vast and difficult subject. The body scheme with its temporal and spatial aspects provides a valuable statement of the individual's diagram of himself, and in it I believe there is no obvious place for the mind. Yet in clinical practice we do meet with the mind as an entity localized somewhere by the patient; a further study of the paradox that 'mind does not really exist as an entity' is therefore necessary.

Mind as a function of psyche-soma

To study the concept of mind one must always be studying an individual, a total individual, and including the development of that individual from the very beginning of psychosomatic existence. If one accepts this discipline then one can study the mind of an individual as it specializes out from the psyche part of the psyche-soma.

The mind does not exist as an entity in the individual's scheme of things provided the individual psyche-soma or body scheme has come satisfactorily through the very early developmental stages; mind is then no more than a special case of the functioning of the psyche-soma.

In the study of a developing individual the mind will often be found to be developing a *false entity*, and a *false localization*. A study of these abnormal tendencies must precede the more direct examination of the mind-specialization of the healthy or normal psyche.

We are quite used to seeing the two words mental and physical opposed and would not quarrel with their being opposed in daily conversation. It is quite another matter, however, if the concepts are opposed in scientific discussion.

The use of these two words physical and mental in describing disease leads us into trouble immediately. The psychosomatic disorders, half way between the mental and the physical, are in a rather precarious position. Research into psychosomatics is being held up,‡ to some extent, by the muddle to which I am referring. Also, neuro-surgeons are doing things to the normal or healthy brain in an attempt to alter or even improve mental states. These 'physical' therapists are completely at sea in their theory; curiously enough they seem to be leaving out the importance of the physical body, of which the brain is an integral part.

* A paper read before The Medical Section of the British Psychological Society, 14 December 1949 and revised October 1953.

† Physician, Paddington Green Childrens' Hospital, London; Physician to the Child Department and Honorary Training Secretary, Institute of Psycho-Analysis.

‡ This suggestion is reflected in a recent article by Ida Macalpine (1953).

Statement of psyche-soma development

Let us attempt, therefore, to think of the developing individual, starting at the beginning. Here is a body, and the psyche and the soma are not to be distinguished except according to the direction from which one is looking. One can look at the developing body or at the developing psyche. I suppose the word psyche here means the *imaginative elaboration of somatic parts, feelings, and functions*, that is, of physical aliveness. We know that this imaginative elaboration is dependent on the existence and the healthy functioning of the brain, especially certain parts of it. The psyche is not, however, felt by the individual to be localized in the brain, or indeed to be localized anywhere.

Gradually the psyche and the soma aspects of the growing person become involved in a process of mutual interrelation. This interrelating of the psyche with the soma constitutes an early phase of individual development (see Winnicott, 1945). At a later stage the live body, with its limits, and with an inside and an outside, is *felt by the individual* to form the core for the imaginative self. The development to this stage is extremely complex, and although this development may possibly be fairly complete by the time a baby has been born a few days, there is a vast opportunity for distortion of the natural course of development in these respects. Moreover, whatever applies to very early stages also applies to some extent to all stages, even to the stage that we call adult maturity.

Theory of mind

On the basis of these preliminary considerations I find myself putting forward a theory of mind. This theory is based on work with analytic patients who have needed to regress to an extremely early level of development in the transference. In this paper I shall only give one piece of illustrative clinical material, but the theory can, I believe, be found to be valuable in our daily analytic work.

Let us assume that health in the early development of the individual entails *continuity of being*. The early psyche-soma proceeds along a certain line of development provided its *continuity of being is not disturbed*; in other words, for the healthy development of the early psyche-soma there is a need for a *perfect* environment. At first the need is absolute.

The perfect environment is one which *actively adapts* to the needs of the newly formed psyche-soma, that which we as observers know to be the infant at the start. A bad environment is bad because by failure to adapt it becomes an *impingement* to which the psyche-soma (i.e. the infant) must *react*. This reacting disturbs the continuity of the going-on-being of the new individual. In its beginnings the good (psychological) environment is a physical one, with the child in the womb or being held and generally tended; only in the course of time does the environment develop a new characteristic which necessitates a new descriptive term, such as emotional or psychological or social. Out of this emerges the ordinary good mother with her ability to make active adaptation to her infant's needs arising out of her devotion, made possible by her narcissism, her imagination and her memories which enable her to know through identification what are her baby's needs.

The need for a good environment, which is absolute at first, rapidly becomes relative. *The ordinary good mother is good enough.* If she is *good enough* the infant becomes able to allow for her deficiencies by mental activity. This applies to meeting not only instinctual impulses but also all the most primitive types of ego-need, even including the need for negative care or an alive neglect. The mental activity of the infant turns a *good enough* environment into a perfect environment, that is to say, turns relative failure of adaptation into adaptive success. What releases the mother from her need to be near-perfect is the infant's understanding. In the ordinary course of events the mother tries not to introduce complications beyond those which the infant can understand and allow for; in particular she tries to insulate her baby from coincidences

and from other phenomena that must be beyond the infant's ability to comprehend. In a general way she keeps the world of the infant as simple as possible.

The mind, then, has as one of its roots a variable functioning of the psyche-soma, one concerned with the threat to continuity of being that follows any failure of (active) environmental adaptation. It follows that mind-development is very much influenced by factors not specifically personal to the individual, including chance events.

In infant care it is vitally important that mothers, at first physically, and soon also imaginatively, can start off by supplying this active adaptation, but also it is a characteristic maternal function to provide *graduated failure of adaptation*, according to the growing ability of the individual infant to allow for relative failure by mental activity, or by understanding. Thus there appears in the infant a tolerance in respect of both ego-need and instinctual tension.

It could perhaps be shown that mothers are released slowly by infants who eventually are found to have a low I.Q. On the other hand, an infant with exceptionally good brain, eventually giving a high I.Q., releases the mother earlier.

According to this theory then, in the development of every individual, the mind has a root, perhaps its most important root, in the need of the individual, at the core of the self, for a perfect environment. (In this connexion, I might refer to my view of psychosis as an environmental deficiency disease (Winnicott, 1953).) There are certain developments of this theory which seem to me to be important. Certain kinds of failure on the part of the mother, especially erratic behaviour, produce over-activity of the mental functioning. Here, in the overgrowth of the mental function reactive to erratic mothering, we see that there can develop an opposition between the mind and the psyche-soma, since in reaction to this abnormal environmental state the thinking of the individual begins to take over and organize the caring for the psyche-soma, whereas in health it is the function of the environment to do this. In health the mind does not usurp the environment's function, but makes possible an understanding and eventually a making use of its relative failure.

The gradual process whereby the individual becomes able to care for the self belongs to later stages in individual emotional development, stages that must be reached in due course, at the pace that is set by natural developmental forces.

To go a stage further, one might ask what happens if the strain that is put on mental functioning organized in defence against a tantalizing early environment is greater and greater? One would expect confusional states, and (in the extreme) mental defect of the kind that is not dependent on brain tissue deficiency. As a more common result of the lesser degrees of tantalizing infant-care in the earliest stages we find *mental functioning becoming a thing in itself*, practically replacing the good mother and making her unnecessary. Clinically, this can go along with dependence on the actual mother and a false personal growth on a compliance basis. This is a most uncomfortable state of affairs, especially because the psyche of the individual gets 'seduced' away into this mind from the intimate relationship which the psyche originally had with the soma. The result is a mind-psyche, which is pathological.

A person who is developing in this way displays a distorted pattern affecting all later stages of development. For instance, one can observe a tendency for easy identification with the environmental aspect of all relationships that involve dependence, and a difficulty in identification with the dependent individual. Clinically one may see such a person develop into one who is a *marvellously good mother to others* for a limited period; in fact a person who has developed along these lines may have almost magical *healing properties* because of an extreme capacity to make active adaptation to primitive needs. The falsity of these patterns for expression of the personality, however, becomes evident in practice. Breakdown

threatens or occurs, because what the individual is all the time needing is *to find someone else* who will make real this 'good environment' concept, so that the individual may return to the dependent psyche-soma which forms the only place to live from. In this case, 'without mind' becomes a desired state.

There cannot of course be a direct partnership between the mind-psyche and the body of the individual. But the *mind*-psyche is localized by the individual, and is placed either inside the head or outside it in some special relation to the head, and this provides an important source for headache as a symptom.

The question has to be asked why the head should be the place inside or outside which the mind becomes localized by the individual, and I do not know the answer. I feel that an important point is the individual's need to localize the mind because it is an enemy, that is to say, for control of it. A schizoid patient tells me that the head is the place to put the mind because, *as the head cannot be seen by oneself*, it does not obviously exist as part of oneself. Another point is that the head has special experiences during the birth process, but in order to make full use of this latter fact I must go on to consider another type of mental functioning which can be specially activated during the birth process. This is associated with the word 'memorizing'.

Memorizing

As I have said, the continuity of being of the developing psyche-soma (internal and external relationships) is disturbed by reactions to environmental impingements, in other words by the results of failures of the environment to make active adaptation. By my theory a rapidly increasing amount of reaction to impingement disturbing continuity of psyche-soma being becomes expected and allowed for according to mental capacity. Impingements demanding *excessive* reactions (according to the next part of my theory) cannot be allowed for. All that can happen apart from confusion is that the reactions can be *catalogued*.* Typically at birth there is apt to be an excessive disturbance of continuity because of reactions to impingements, and the mental activity which I am describing at the moment is that which is concerned with exact memorizing during the birth process. In my psychoanalytic work I sometimes meet with regressions fully under control and yet going back to pre-natal life. Patients regressed in an ordered way go over the birth process again and again, and I have been astonished by the convincing proof that I have had that an infant during the birth process not only memorizes every reaction disturbing the continuity of being, but also appears to memorize these in the correct order. I have not used hypnosis, but I am aware of the comparable discoveries, less convincing to me, that are achieved through use of hypnosis. Mental functioning of the type that I am describing, which might be called memorizing or cataloguing, can be extremely active and accurate at the time of a baby's birth. I shall illustrate this by details from a case, but first I want to make clear my point that *this type of mental functioning is an encumbrance to the psyche-soma*, or of the individual human being's continuity of being which constitutes the self. The individual may be able to make use of it to relive the birth process in play or in a carefully controlled analysis. But this cataloguing type of mental functioning acts like a foreign body if it is associated with environmental adaptive failure that is beyond understanding or prediction.

No doubt in health it may happen that the environmental factors are held fixed by this method until the individual is able to make them his own after having experienced libidinous and especially aggressive drives, which can be projected. In this way, and it is essentially a false way, the individual gets to feel responsible for the bad environment which in fact he was not responsible for, and which he could (if he knew) justly blame on the world because it disturbed the continuity of his innate

* Cf. Freud's theory of obsessional neurosis.

developmental processes before the psyche-soma had become sufficiently well organized to hate or to love. Instead of hating these environmental failures the individual became disorganized by them because the process existed prior to hating.

Clinical illustration

The following fragment of a case history is given to illustrate my thesis. Out of several years' intensive work it is notoriously difficult to choose a detail; nevertheless, I include this fragment in order to show that what I am putting forward is very much a part of daily practice with patients.

A woman* who is now 47 years old had made what seemed to others but not to herself to be a good relationship to the world and had always been able to earn her own living. She had achieved a good education and was generally liked; in fact I think she was never actively disliked. She herself, however, felt completely dissatisfied, as if always aiming to find herself and never succeeding. Suicidal ideas were certainly not absent but they were kept at bay by her belief which dated from childhood that she would ultimately solve her problem and find herself. She had had a so-called 'classical' analysis for several years but somehow the core of her illness had been unchanged. With me it soon became apparent that this patient must make a very severe regression or else give up the struggle. I therefore followed the regressive tendency, letting it take the patient wherever it led; eventually the regression reached the limit of the patient's need, and from then on there has been a natural progression with the true self instead of a false self in action.

For the purpose of this paper I choose for description one thing out of an enormous amount of material. In the patient's previous analysis there had been incidents in which the patient had thrown herself off the couch in an hysterical way. These episodes had been interpreted along ordinary lines for hysterical phenomena of this kind. In the deeper regression of this new analysis light was thrown on the root of these falls. In the course of the two years of analysis with me the patient has repeatedly regressed to an early stage which was certainly prenatal. The birth process has had to be relived, and eventually I recognized how an unconscious need to relive the birth process underlay what had previously been an hysterical falling off the couch.

A great deal could be said about all this, but the important thing from my point of view here is that evidently every detail of the birth experience had been retained, and not only that, but the details had been retained in the exact sequence of the original experience. A dozen or more times the birth process was relived and each time the reaction to one of the major external features of the original birth process was singled out for re-experiencing.

Incidentally, these relivings illustrated one of the main functions of acting out; by acting out the patient informed herself of the bit of psychic reality which was difficult to get at at the moment, but of which the patient so acutely needed to become aware. I will enumerate some of the acting-out patterns, but unfortunately I cannot give the sequence which nevertheless I am quite sure was significant.

(1) The breathing changes had to be gone over in most elaborate detail.

(2) The constrictions passing down the body had to be relived and so remembered.

(3) The birth from the fantasy inside of the belly of the mother, who was a depressive, unrelaxed person.

(4) The changeover from not feeding to feeding from the breast, and from the bottle.

(5) The same with the addition that the patient had sucked her thumb in the womb and on coming out had to have the fist in relation to the breast or bottle, thus making continuity between object relationships within and without.

(6) The severe experience of pressure on the head, and also the extreme of awfulness of the release of pressure on the head; during which phase, unless her head were held, she could not have endured the re-enactment.

(7) There is much which is not yet understood in this analysis about the bladder functions affected by the birth process.

(8) The changeover from pressure all round which belongs to the intra-uterine stage to pressure from underneath which belongs to the extra-uterine state. Pressure if not excessive means love.

* Case referred to again in another paper (see Winnicott, 1954).

After birth therefore she was loved on the under side only and unless turned round periodically, became confused.

Here I must leave out perhaps a dozen other factors of comparable significance.

(9) Gradually the re-enactment reached the worst part. When we were nearly there, there was the anxiety of having the head crushed. This was first got under control by the patient's identification with the crushing mechanism. This was a dangerous phase because if acted out outside the transference situation it meant suicide. In this acting-out phase the patient existed in the crushing boulders or whatever might present, and the gratification came to her then from *destruction* of the head (including mind and false psyche) which had lost significance for the patient as part of the self.

(10) Ultimately the patient had to accept annihilation. We had already had many indications of a period of blackout or unconsciousness, and convulsive movements made it likely that there was at some time in infancy a minor fit. It appears that in the actual experience there was a loss of consciousness which could not be assimilated to the patient's self until accepted as a death. When this had become real the word death became wrong and the patient began to substitute 'a giving-in', and eventually the appropriate word was 'a not-knowing'.

In a full description of the case I should want to continue along these lines for some time, but development of this and other themes must be made in future publications. Acceptance of not-knowing produced tremendous relief. 'Knowing' became transformed into 'the analyst knows', that is to say, 'behaves reliably in active adaptation to the patient's needs'. The patient's whole life had been built up around mental functioning which had become falsely the place (in the head) from which she lived, and her life which had rightly seemed to her false had been developed out of this mental functioning.

Perhaps this clinical example illustrates what I mean when I say that I got from this analysis a feeling that the cataloguing of reactions to environmental impingements belonging to the time around about birth had been exact and complete; in fact I felt that the only alternative to the success of this cataloguing was absolute failure, hopeless confusion and mental defect.

But the case illustrates my theme in detail as well as generally.

I quote again from Scott (1949):

Similarly when a patient in analysis loses his mind in the sense that he loses the illusion of needing a psychic apparatus which is separate from all that which he has called his body, his world, etc. etc., this loss is equivalent to the gain of all that conscious access to and control of the connexions between the superficies and the depths, the boundaries and solidity of his Body Scheme—its memories, its perceptions, its images, etc., etc., which he had given up at an earlier period in his life when the duality soma-psyche began.

Not infrequently in a patient whose first complaint is of fear of 'losing his mind'—the desire to lose such a belief and obtain a better one soon becomes apparent.

At this point of not-knowing in this analysis there appeared the memory of a bird that was seen as 'quite still except for the movements of the belly which indicated breathing'. In other words, the patient had reached, at 47 years, the state in which physiological functioning in general constitutes living. The psychical elaboration of this could follow. This psychical elaboration of physiological functioning is quite different from the intellectual work which so easily becomes artificially a thing in itself and falsely a place where the psyche can lodge.

Naturally only a glimpse of this patient can be given, and even if one chooses a small part, only a bit of this part can be described. I would like, however, to pursue a little the matter of the gap in consciousness. I need not describe the gap as it appeared in more 'forward' terms, the bottom of a pit, for instance, in which in the dark were all sorts of dead and dying bodies. Just now I am concerned only with the most primitive of the ways in which the gap was found, by the patient, by the reliving processes belonging to the transference situation. The gap in continuity which had all the patient's life been something actively denied now became something urgently

sought. We found a need to have the head broken into, and violent head banging appeared as part of an attempt to produce a blackout. At times there was an urgent need for the destruction of the mental processes located by the patient in the head. A series of defences against full recognition of the desire to reach the gap in continuity of consciousness had to be dealt with before there could be acceptance of the not-knowing state. It happened that on the day on which this work reached its climax the patient stopped writing her diary.* This diary had been kept right during the analysis, and it would be possible to reconstruct the whole of her analysis up to this time from it. There is little that the patient could perceive that has not been at least indicated in this diary. The meaning of the diary now became clear—it was a projection of her mental apparatus, and not a picture of the true self, which, in fact, had never lived till, at the bottom of the regression, there came a new chance for the true self to start.

The results of this bit of work led to a temporary phase in which there was no mind and no mental functioning. There had to be a temporary phase in which the breathing of her body was all. In this way the patient became able to accept the not-knowing condition because I was holding her and keeping a continuity by my own breathing, while she let go, gave in, knew nothing; it could not be any good however, if I held her and maintained my own continuity of life if she were dead. What made my part operative was that I could see and hear her belly moving as she breathed (like the bird) and therefore I knew that she was alive.

Now for the first time she was able to have a psyche, an entity of her own, a body that breathes and in addition the beginning of fantasy belonging to the breathing and other basic physiological functions.

We as observers know, of course, that the mental functioning which enables the psyche to be there enriching the soma is dependent on the intact brain. But we do not place the psyche anywhere, not even in the brain on which it depends. For this patient, regressed in this way, these things were at last not important. I suppose she would now be prepared to locate the psyche wherever the soma is alive.

(This patient has made considerable progress since this paper was read. Now in 1954 we are able to look back on the period of the stage I have chosen for description, and to see it in perspective. I do not need to modify what I have written. Except for the violent complication of the birth process body-memories, there has been no major disturbance of the patient's regression to a certain very early stage and subsequent forward movement towards a new existence as a real individual who feels real.)

Mind localized in the head

I now leave my illustration and return to the localizing of the mind in the head. I have said that the imaginative elaboration of body parts and functions is not localized. There may, however, be localizations which are quite logical in the sense that they belong to the way in which the body functions. For instance, the body takes in and gives out substances. An inner world of personal imaginative experience therefore comes into the scheme of things, and shared reality is on the whole thought of as outside the personality. Although babies cannot draw pictures, I think that they are capable (except through lack of skill) of depicting themselves by a circle at certain moments in their first months. Perhaps if all is going well, they can achieve this soon after birth; at any rate we have good evidence that at six months a baby is at times using the circle or sphere as a diagram of the self. It is at this point that Scott's body scheme is so illuminating and especially his reminder that we are referring to time as well as to space. In the body scheme as I understand it there seems to me to be no place for the mind, and this is not a criticism of the body scheme as a diagram; it is a com-

* The diary was resumed at a later date, for a time, with a looser function, and a more positive aim including the idea of one day using her experiences profitably.

ment on the falsity of the concept of the mind as a localized phenomenon.

In trying to think out why the head is the place where either the mind is localized or else outside which it is localized, I cannot help thinking of the way in which the head of the human baby is affected during birth, the time at which the mind is furiously active cataloguing reactions to a specific environmental persecution.

Cerebral functioning tends to be localized by people in the head in popular thought, and one of the consequences of this deserves special study. Until quite recently surgeons could be persuaded to open the skulls of mentally defective infants to make possible further development of their brains which were supposed to be constricted by the bones of the skull. I suppose the early trephining of the skull was for relief of *mind* disorders, i.e. for cure of persons whose mental functioning was their enemy and who had falsely localized their mental functioning in their heads. At the present time the curious thing is that once again in medical scientific thought the brain has got equated with the mind, which is felt by a certain kind of ill person to be an enemy, and a thing in the skull. The surgeon who does a leucotomy would *at first* seem to be doing what the patient asks for, that is, to be relieving the patient of mind activity, the mind having become the enemy of the psyche-soma. Nevertheless, we can see that the surgeon is caught up in the mental patient's false localization of the mind in the head, with its sequel, the equating of mind and brain. When he has done his work he has failed in the second half of his job. The patient wants to be relieved of the *mind activity* which has become a threat to the psyche-soma, but the patient next needs the full-functioning brain tissue *in order to be able to have psyche-soma existence.* By the operation of leucotomy with its irreversible brain changes the surgeon has made this impossible. Alternatively, the procedure has been of no use except through what the operation means to the patient's unconscious.

The imaginative elaboration of somatic experience, the psyche, and for those who use the term, the soul, depends on the intact brain, as we know. We do not expect the *unconscious* of anyone to know such things, but we feel the neuro-surgeon ought to be to some extent affected by intellectual considerations.

Psychosomatic illness

In these terms we can see that one of the aims of *psychosomatic illness* is to draw the psyche from the mind back to the original intimate association with the soma. It is not sufficient to analyse the hypochondria of the psychosomatic patient, although this is an essential part of the treatment. One has also to be able to see the *positive value of the somatic disturbance* in its work of counteracting a 'seduction' of the psyche into the mind. Similarly, the aim of physiotherapists and the relaxationists can be understood in these terms. They do not have to know what they are doing to be successful psychotherapists. In one example of the application of these principles, if one tries to teach a pregnant woman how to do all the right things one not only makes her anxious, but one feeds the tendency of the psyche to lodge in the mental processes. *Per contra*, the relaxation methods at their best enable the mother to become body-conscious, and (if she is not a mental case) these methods help her to a continuity of being, and enable her to live as a psyche-soma. This is essential if she is to experience child-birth and the first stages of mothering in a natural way.

Summary

1. The true self, a continuity of being, is in health based on psyche-soma growth.

2. Mental activity is a special case of the functioning of the psyche-soma.

3. Intact brain functioning is the basis for psyche-being as well as for mental activity.

4. There is no localization of a mind self, and there is no thing that can be called mind.

5. Two distinct bases for normal mental functioning can already be given; viz.: (*a*) conversion of good enough environment

into perfect (adapted) environment, enabling minimum of reaction to impingement and maximum of natural (continuous) self-development; and (*b*) cataloguing of impingements (birth trauma, etc.) for assimilation at later stages of development.

6. It is to be noted that psyche-soma growth is universal and its complexities are inherent, whereas mental development is somewhat dependent on variable factors such as the quality of early environmental factors, the chance phenomena of birth and of management immediately after birth, etc.

7. It is logical to oppose psyche and soma and therefore to oppose the emotional development and the bodily development of an individual. It is not logical, however, to oppose the mental and the physical as these are not of the same stuff. Mental phenomena are complications of variable importance in psyche-soma continuity of being, in that which adds up to the individual's 'self'.

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PSYCHOLOGICAL IMPLICATIONS OF MALIGNANT GROWTH*

A SURVEY OF HYPOTHESES

By JOOST A. M. MEERLOO†

The aim of this paper is to give a survey of the different psychological aspects of the problem of malignancy: how do mind and body work together in this field? Such a survey has a double purpose. It acquaints us with the often subtle and paradoxical results produced when fear and prejudice confuse the patient, but in addition it may give new clues to the study of malignant growth. In biology and pathology there is never a single agent that causes a disease, though sometimes one factor may be the principal cause of the outbreak.

Much of our medical bias is directed by our first astounding experiences. One of my first psychiatric patients was sent to me in order to convince her that an operation for sarcoma of the jaw was indicated. She had refused surgical treatment because she wanted to die her own death. I was not able to convince this patient, but in the course of our psychotherapeutic explorations the tumour disappeared, although biopsy had shown it to be malignant. Our mutual astonishment was tremendous. What really had taken place I do not know, although many justifying theories could be proposed. I can only say that a problem with its full implications was aroused.

The fact that in this survey solely psychological factors are explored does not imply that these constitute the principal aetiological ones. Yet within the last few years, more and more medical publications have been investigating purely psychological problems in the cancer patient (see References). I am aware of the fact that too much emphasis of psychology may be just as disturbing for many a scientist as total neglect of this aspect is for the psychotherapist. In a former publication written jointly by Meerloo & Zeckel (1952), the problems involved were divided into the following categories:

(1) *Cancer knowledge and cancer prejudice*

The subjective attitude exhibited by the patient, the family, the physician and the environment. To this group belong the avoidance of treatment, the detour to quacks, public education and cancerophobia.

(2) *Cancer horror*

The emotional and symbolic meaning of a special organ (invaded by malignancy) to the patient. Specific nightmares are aroused depending on the invaded organ. Mutilation and fear of mutilation cause special psychopathology.

(3) *The psychomatic concept of cancer*

This is the study of the purely psychological trigger mechanisms or the possible physico-chemical and psychological interactions. Numerous problems of this character may confront a clinician with a difficult task. The gamut of emotions may be run—from the delusion of having cancer (cancerophobia) in otherwise healthy people, to the complete denial of the disease or the unwillingness to be helped in case of serious affliction.

SOME THEORIES OF THE RELATION BETWEEN CANCER AND PSYCHOLOGICAL FACTORS

In order to grasp more thoroughly the concept that there may be a relation between psychological factors and malignancy, let us speculate carefully about the following suppositions and verify them with clinical experiences. I cannot follow a rigid scheme here. That must grow out of more extended

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† Instructor in Psychiatry, Columbia University; Lecturer in Social Psychology, The New School of Social Research.

exploration. The process of re-arranging problems and hypotheses is useful for a more objective approach.

What can be the relation between cancer and psychological symptoms?

(1) The physical and psychological manifestations are mere coincidence; the emotional and somatic afflictions stem from different causes. The word coincidence may be confusing. People often look for relationships between phenomena without having any logical evidence to account for the explanation-delusion; many a student denies every relationship because not enough convincing evidence is available now.

During psychoanalytic treatment, a patient of mine developed an elaborate tumour of the humerus. Her mother had died of a malignant sarcoma of the humerus. The X-ray gave no clear evidence of changed bone structure, but the surgeon was convinced that operation was indicated. Though the psychotherapist knew that his patient had gone through a period of very stormy identification with her mother while she produced many other so-called hysterical manifestations, the doctor himself was not sure at all what to advise. Only because tumour and pain started to disappear gradually were both physicians saved from the dilemma of diagnosis and surgical therapy.

Lack of evidence (even in a psychoanalytical sense) prevents us from saying whether the combination of mental and physical symptoms was coincidental or related. This is what happens in so many actual cases.

(2) Psychological involvements may be secondary to cancer. The growth, its cerebral localization, or its toxic metabolism may influence psychological functions. This we often see in the course of malignancy. Brain tumours are often first seen by psychiatrist or analyst because of their mental implications. The psychological approach may here endanger the right diagnosis.

(3) Unknown cultural environmental factors may provoke both malignant growth and emotional disturbance. Here we touch the problem of cancerogenous habit formation: smoking, inhaling of gaseous products, radiation. The science of geopathology will provide us with more satisfactory answers to these questions, especially the study of cancer in different cultures.

(4) The emotional disturbance, or even the psychosis, may be the first sign of a previously hidden cancer. The psychological aspect is only secondary. I could describe several cases of pulmonary growth which followed such a course. Pulmonary growth is often first seen by the neuropsychiatrist.

The following experience illustrates such a relationship. A man aged 56 suffered for many years from depression complicated by all kinds of neuralgic pains. As his chronic psychosis deteriorated and he became more violent, owing to bitterness, he was placed in a hospital for rest therapy. Examination revealed a slight anaemia and a blood sedimentation rate of 60. Profiting by previous experiences and in view of the neuralgic pains in his chest and arms, an X-ray examination was made, with negative results. On these grounds it was decided to give a mild barbiturate treatment, after which the patient felt psychologically much better. After two months he had a relapse, but his condition was still such that he could be nursed at home. Six months later the neuralgic pains increased. The blood sedimentation rate was now 66. Eight months after the first consultation came the first haemoptysis. When fresh X-ray films were taken a big pulmonary growth could be seen stretching from the right hilus. In the tenth month the patient died suddenly in his sleep. This occurred in 1937 when no surgical approach to this disease was known.

Since then I have seen several more cases of pulmonary growth starting with an aggressive-depressive syndrome before the physical signs showed themselves (Meerloo, 1944).

(5) A common central brain factor or endocrine factor may cause both the emotional disturbance and the malignancy. This thought is not speculative any more since we are aware of the relation between the function of the hypophysis and the hypothalamus and malignant growth, and the relation between the endocrine system and cancer. In my own experience I have seen only one case where

an acromegalic syndrome combined with paranoiac ideas were related to diencephalic metastases of a malignant tumour.

Many biochemical investigations are being made in this field; the acid-phosphatase level could be an indicator, enzyme systems are investigated, and so on.

(6) If there is malignant growth, there may be an unconsciously directed organ choice. Is there a cancer type? Psychosomatic medicine is acquainted with many irrational and destructive attitudes of patients toward some of their organs. There may exist a chronic physical irritation, but also a chronic emotional irritation, involving autonomic changes as a result of increased attention to organs and as a consequence leading to a gradual physico-chemical change. Emotions influence the body defences. As a result of the disturbing emotional investment, the organ may lose its resistance toward the as yet unknown cancerogenous invasion. What influences the quite different growth rates of cancer? Several studies on cervix cancer and breast cancer indicate the suspicion of such a relation (see Tarlau & Smallheiser, 1951). Since we know that sex hormones are related to malignant growth, this point is no longer so strange to the clinician. In several clinics investigations are being made in regard to these psychosomatic implications. I have experienced that in cases of inoperable cancer not only was the pain relieved by hypnosis, but in some cases the symptoms themselves receded temporarily, to the great surprise of the surgeon.

(7) There may be mere delusion of cancer. Campaigns aimed at enlightening the public in regard to malignant growth may serve in many cases to increase hypochondria and neurotic fears. They may prevent some people from visiting their doctors or influence them to prefer a quack. Anxiety-provoking propaganda may fortify the denial mechanism in the patient.

In one case a patient with a continual phobia of breast cancer went from clinic to clinic and received reassurance after reassurance. She died of a pancreas cancer discovered only shortly before her death; cancerophobia had disguised the real cancer.

The problem of telling a patient if he has cancer is a complicated one. Unconsciously he knows already. When there is a good relationship with his doctor, the physician can tell him the truth if he takes all the consequences of the much needed psychotherapy. On several occasions I used hypno-catharsis with patients having inoperable cancer. They already have a greater transference need which makes the hypnosis easier. The hypnosis not only corrects the fear and pain but has in some cases a temporary therapeutic action on metastatic symptoms.

(8) Even the small lesion made in order to obtain suspected tissue for histopathological diagnosis may initiate a whole gamut of psychological reactions. This is especially the case in suspected cancer of the cervix. One of my patients, a young woman, who came for treatment of leucorrhoea and who was found to be free of cancer, developed phobic reactions of sexual insufficiency related to latent mutilation and castration fantasies.

The greater lesion caused by hysterectomy or amputation of the breast needs correspondingly more psychological guidance. The surgical attack on the body image is able to cause all kinds of emotional troubles. I have even seen brief psychotic episodes after such amputations. The traumatic neuro-psychosis after operation needs, like the traumatic battle neurosis, treatment as soon as possible in order to prevent fixation of the neurotic disintegration.

(9) Stress, mental shock or mal-adaptation may be causative factors in the development of cancer. Only within the last few years have we become more aware of the involved action of stress-hormones (adrenalin, cortisone, ACTH). Clinically our attention has to be directed more to the influence on certain defences of great changes in life, for example, frustrated ambition, repressed aggression, lost cathexis, forced leisure as part of the pension system. Investigations during recent years suggest that some personality patterns can

be correlated with certain forms of cancer (West, Blumberg & Ellis, 1952).

I have observed how often a sudden malignant growth developed after great personal disappointment and breakdown of defences. There exists a peculiar relationship—as yet unsolved—between panic, fear, melanosis and the development of melanosarcoma.

The cancer cell also has an internal environment—the other tissues. They, too, may have become sensitive to emotional influences and as a result the tissues are less able to resist cancerous growth.

(10) There may exist direct aetiological emotional factors causing—in the medical plural sense—malignant growth. Emotional shock may bring about retrogression, disintegration and self-destruction, leading to disturbance of adaptation. These results may be reflected in possible physico-chemical and psychological interactions. The problem of regression to a more primitive existence, as we observe histologically in the cancer cell, is of special theoretical significance. In cancer the tissue cell becomes omnipotent. The change from a highly differentiated yet integrated state to a less differentiated biological form is called anaplasia, retrogression or devolution. It indicates one of the most typical characteristics of the cancer cell. Cancer and embryonic tissues are the only ones that can be successfully transplanted from man to other animals. Is the cancer cell an embryonic stress cell? No satisfying answer can be given at this moment. A peculiar, confusing paradox is that fear and anxiety may increase certain steroids in the bloodstream, that increased steroids may cause cancer, that fear of cancer may be related to the aetiology of cancer!

Part of the solution of the cancer problem will probably be found in a comparative study of biological reactions to stress. Is it an autofertilization of cells causing the cell to become omnipotent? The process of regression to a state of autofertilization is experienced through all the animal kingdom. Conjugation, autofertilization and encystication are common biological adaptive reactions to catastrophe. Deep regression may even have a curative and regenerative effect as is seen in catatonic and hypnotic catalepsy.

Groddeck, who had a sharp intuitive mind, calls cancer a symbolic pregnancy (1934 *b*). He looks for the cause of cancer in deeply hidden unconscious processes, a displaced embryo formation on the basis of deeply repressed motherhood.

All this calls forth a renewed interest in the psychobiology of deep regressions and the management of vital energy in retrogenesis.

(11) The investigator of the cancer problem may unconsciously adopt an attitude of denying or shying away from emotional involvements. The vague awareness of our own fears and anxieties makes it difficult to identify with patients and their troubles. Zeckel (1952) told me in a personal communication that the psychotherapist of one of his patients fell asleep after the patient came back from a cancer operation. The counter-transference was too difficult, indeed.

The retreat toward the pure physico-chemical front of research is often a defence against underlying personal troubles. Point (12) illustrates some of these underlying medical frustrations.

(12) The so-called incurable cancer patient is always in need of emotional support. This type of patient constitutes a serious frustration to medical ambition. As a result, a doctor may react less unemotionally and objectively than in other areas of medical activity.

Many patients definitely do not want to know the truth about themselves. This attitude of denial of the disease can be conscious or unconscious. There is a tendency to put off having the diagnosis made. These persons look upon examination for cancer as though they were already certain of a fatal verdict. This magical attitude toward the diagnosis of cancer as a verdict and a death sentence—which many a physician unwittingly shares with his patients—is the centre point of the psychodynamics of the patient. Doctor and family reject the patient in order to deny their own anxieties. In a recent inquiry it was found out

that only those specialists who are sure of a good prognosis, e.g. the dermatologists, inform their patients that they have cancer (see Fitts & Ravdin, 1950). It has also been observed that after the diagnosis of cancer has been established, the patient suddenly becomes worse. Doctor and patient both take part in this breakdown. In many such cases active emotional support and psychotherapy have to be seriously considered as an accompaniment to the total arsenal of medicine and surgery. As we have already seen, this form of therapy may have unexpected, favourable results, not only in the control of pain but also in the general psychosomatic aspect of the patient.

(13) The last point I want to mention is the valuable study of the physiology and the behaviour of those who were estimated to be incurable cancer patients or who refused to be treated, but who lived and miraculously lost their symptoms in some cases. These patients are known to medical literature (130 such cases have been published) and might give us some clarification concerning largely unknown factors (Boyers, 1953). Why is it that the medical world no longer believes in a *restitutio ad integrum*? Such pessimism is unbiological in its attitude.

Twenty-four years ago I saw a patient who was referred with a severe depression in connexion with impending death. Shortly before the referral, a surgeon had found an inoperable breast cancer, proved by biopsy. From the first session on, the patient went more and more deeply into her difficult emotional problems. After some treatment, she was able to start on a round-the-world trip that she had wanted to take for a long time and had never before felt justified to indulge in. Now she wanted to enjoy the trip before her death. After two years of travelling, she returned, feeling well and full of vigour, though with her tumours . . ., and she is still alive.

Such an incidental case does not contribute to our physico-chemical knowledge of cancer, nor even to our psychological understanding. However, it is not the only case I have seen, and it serves to sharpen our attention to a better study of this kind of cases.

Summary

This summing up of the possible relations involved leads to clarification only if we can transpose the observations to our daily clinical experience. Our clinical observations are often influenced by our biased expectations. The tendency to get away from psychological implications may be present in both patient and therapist. Cancer is always associated with death, and thinking and feeling about death are taboo. However, because of these impending fears, emotional support and even more extended psychological understanding are needed. This is true especially in aged patients who are afraid to be realistic about their symptoms. The fear of mutilation, of drastic change, and of death, which malignancies arouse, make it very important that the doctor be aware of psychological aspects in his patient, in the patient's family and in himself as well. It is not easy to hypnotize a patient who is scientifically doomed to death, or to work through emotional difficulties with someone who expects death round the corner. Nevertheless, from my own experience it can be rewarding for patient and therapist alike.

Beyond this, raising the theoretical question of eventual or additional psychological aetiology is an honest scientific proposal founded on a variety of clinical experiences. The solution will only be brought about by intensive teamwork in which biochemist, physician, psychologist and anthropologist will have to co-operate.

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SOME APPLICATIONS OF BEHAVIOUR THEORY IN PSYCHOPATHOLOGY

By D. RUSSELL DAVIS*

Turning away occasionally from clinical problems, the psychopathologist finds that there is much to be learnt from research in neighbouring fields and perhaps especially from the study of animal behaviour.

The application of principles derived from the study of animal behaviour to the explanation of mental illness was first envisaged as an immediate possibility when Pavlov claimed in 1914 to have produced in a dog a state which he called 'experimental neurosis', and which was in many respects similar to the human anxiety state. When it became known to the Western world through the publication in 1927 of *Conditioned Reflexes*, this claim instigated many and various attempts to produce analogues of human illness in animals.

This experimental work has exerted so far only a disappointingly weak influence on psychopathology. Why should this have been so? I shall try to answer this question and, in doing so, show how behaviour theory could be applied more profitably than hitherto, and how the promise with which work on 'experimental neurosis' was started might yet be realized. I shall then discuss certain psychopathological problems on which behaviour theory throws light.

The relevance of behaviour theory

One reason why psychopathologists have paid so little attention to animal behaviour is because they have supposed that the human illnesses represent disturbances in the more highly developed functions to which there are no counterparts in animals. This is a criticism to which no final answer can be given. It can be countered, however, by the reminder that to regard the human illnesses as belonging to classes of reaction observed in animals as well as in man is a resolution and not a conclusion. It cannot be decided in advance that hypotheses derived from animal experiments are inapplicable. The attempt to apply the hypotheses has to be made. They can then be confirmed or rejected according to the usual rules of scientific procedure. There are good practical reasons for trying to establish the broad framework of principle through the study of animals before turning to more detailed, but often less systematic, studies of man. A similar plan has been successful in elucidating the functions of the human brain.

A second reason is that, because of the ascendancy of psychoanalysis and allied theories, psychopathologists have paid less attention to the behavioural than to the mental symptoms of illness. It is of course only upon the disorders of behaviour that animal experiments have a bearing. But it is far from certain that the emphasis upon the mental symptoms has been advantageous. The mental symptoms are not primary, and are not to be regarded as causal. On the contrary, the causes of mental symptoms and of disorders of behaviour are to be found in external events. If external events are regarded as causal, the mental symptoms are put into a different perspective and are seen as but one component of the organism's reaction; the behaviour and the concomitant physiological processes are other components.

Thirdly, many of the disorders of behaviour produced in the laboratory have proved hardly capable of satisfactory explanation, for the experimental conditions were decided upon empirically and without reference to the main body of behaviour theory. Pavlov, for instance, studied relatively gross breakdowns in function by artificial and highly specialized means, and the disordered behaviour could

* The Psychological Laboratory, University of Cambridge.

not be scored and recorded by his special devices. He could not state precisely, therefore, how the disordered behaviour differed from the normal.

The 'experimental neurosis' developed unexpectedly during some experiments on a dog whose threshold of discrimination between an ellipse and a circle was to be determined, observations being made of the degree of the salivary response, as was usual in Pavlov's experiments, and little account being taken of other aspects of the dog's behaviour. The sudden appearance of struggling, howling and tearing at the restraining harness, in response to an almost circular ellipse, impressed Pavlov as an abnormal development in sharp contrast to what was usually observed. But the activity which Pavlov thought distinctive, and which he described as neurotic, might have been regarded as being of the same kind as, although more intense than, the anticipatory restlessness and excitement now recognized (e.g. Zener, 1937) to be part of the ordinary reaction to conditioned stimuli.

Because Pavlov thought the experimental neurosis to be qualitatively different from the behaviour usually observed, he put forward an explanation which lies outside the main body of conditioned reflex theory, and attributed the neurotic manifestations to a 'collision' between excitatory and inhibitory processes, whose balance is more or less permanently destroyed in consequence. Disordered activity, he thus supposed, does not conform to the principles which govern normal activity.

If we are to apply behaviour theory in psychopathology, however, we have to regard the behaviour of patients, however abnormal it may appear to be, not as the accidental product of a brain whose function has broken down, but as the normal and regular consequence of the external conditions, whether contemporaneous or antecedent, in which it occurs. Disordered mental activity or behaviour is to be regarded as a special example of a normal class of activity.

Fourthly, Pavlov's theory refers to processes in the central nervous system, such as 'collision' between excitatory and inhibitory processes and the 'overstraining' of these processes, whereas the essential problem posed by the human illnesses lies in the definition of the external conditions in which they arise. The demonstration that an analogous state can be produced experimentally in dogs is useful if it can also be said to what class of stimulus the almost circular ellipse belongs. Pavlov's experiments did not answer this question, although others, notably Liddell's (1944), have gone some way towards doing so.

However, I shall not discuss here the stimulus conditions in which experimental neurosis and human illnesses arise, but shall try to answer the question: to what classes of behaviour do the manifestations of illness belong? For this purpose I shall assume that the essential stimulus condition is a *danger signal*, that is to say, a stimulus which has acquired the significance of danger because of the previous experience of the patient. The danger signal activates a secondary drive and thus elicits responses which are directed to the removal of the danger, but which fail. The secondary drive, therefore, remains active and strong.

Behaviour inappropriate to the particular situation

The behaviours observed in illness, which are to be discussed, are the normal and regular consequences of the conditions in which they are elicited. Nevertheless, they may be inappropriate. Or, as Hamilton (1916) put it, 'Every reaction, no matter how inappropriate it may be as an attempt at adjustment to the particular situation which elicits it, is the expression of an innate tendency which enters as a functional unit into the composition of the organism's total reactive equipment. . . and which possesses in itself conservative value either for the individual or his race or both.'

For example, insects may fly towards light, and this tendency has a certain biological value, but leads to their destruction if, in the particular situation, the light is incandescent. A lowering of body temperature leads to a reduction of activity and to the adoption of

a posture which tends to conserve heat, but in some situations such as those following ship-wreck or met with on a mountain side these reactions are less appropriate than would be an increase in activity, with a resulting increase in the production of heat. The reaction of anaphylaxis, although depending upon a mechanism which forms an essential part of the defence against infection, is inappropriate and disproportionate to the insult which elicits it and may result in death. The shortcomings in the mechanisms which relate appetites and choice of food to nutritional needs provide further examples.

The effects of increase in drive strength

Although inappropriate to the particular situation, many of the forms of behaviour observed in the mental illnesses are the expression of tendencies of biological value. For instance, the effects upon behaviour of increase in the strength of a drive are of biological value or, as Cannon (1929) put it, the mechanisms associated with emotion which are evoked in emergency are 'energizing and directly serviceable in making the organism more effective in the violent display of energy which fear or rage or pain may involve'. But the same mechanisms seriously impair the means by which the individual gains control over the emergency if this means is the exercise of a skill requiring accurately graded, timed and co-ordinated responses, as is often the case in civilized life (Davis, 1947). Skills such as those concerned in piloting an aeroplane, for instance, tend to become impaired because of these mechanisms.

The effects of increase in drive strength are several.

(i) The amount of activity increases. When, for instance, rats are placed into activity wheels, the amount of their activity varies, within certain limits, with the degree to which they have been deprived of food. When replete, on the other hand, many animals become inactive, and even comatose as do many birds.

(ii) Responses become more forceful and more rapid. After being deprived of food, chicks, for instance, peck more forcefully and more rapidly at grains of corn (Katz, 1935).

(iii) The minimum intensity of stimulus necessary to evoke a response is reduced.

(iv) A stimulus of given intensity evokes a response more often.

(v) The less specific does a stimulus have to be in order to evoke a response. Thus, the longer chicks have been deprived of food, the wider is the range of objects at which they peck. After injections of testosterone, copulatory responses are evoked in male rats by less attractive females or by less attractive dummies. At the extreme, responses may break through, to produce the so-called *vacuum* or *over-flow* activities in the absence of a discernible releasing stimulus. Sexually excited male stickelbacks, for instance, may show courtship behaviour in the absence of a partner. Mature human males without other sexual outlets may show erection and ejaculation to produce, without specific stimulus, the nocturnal seminal emission.

(vi) Responses related to other drives are excluded. Cold, for instance, suppresses appetites for food. Hunger may overcome the anticipation of pain, as, for instance, when hungry rats cross an electrically charged grid, although they do not do so when they are satiated. Mating responses too are suppressed in hungry animals, although not always.

All these effects can be seen in the behaviour of patients suffering from anxiety, in whom secondary drives related to psychological dangers have become strong. These patients are restless and over-active. Their responses to given stimuli tend to be more than usually forceful, extensive and rapid. Excessive responses are readily evoked by non-specific stimuli, as in the symptom of hyperacusis. Fright reactions are elicited by non-specific stimuli of low intensity. At the extreme is the manic patient whose responsiveness is greatly increased to a wide range of stimuli. Activities related to other drives are reduced; sexual interests, for instance, tend to be in abeyance, and sexual potency to be reduced.

These effects, which are the normal conse-

quences of increase in drive strength, are especially inappropriate in situations over which control is to be gained by the exercise of a skill, for they reduce the efficiency of skills. A vicious circle may then be instituted: the anticipation of losing control over the situation brings about changes in the skill which reduces its efficiency and thereby increases the danger in the situation and, hence, the strength of the drive. A striking example of a vicious circle of this kind is seen in the panic attack, a sudden alarm leading to hasty and excessive measures which add to the cause for alarm.

Displacement activities

Many manifestations of illness are thus of the same kind as those classes of behaviour associated with increase in drive strength. A further effect of increase in drive strength deserves mention. This is displacement activity. By displacement activity is meant, in the sense in which the term is now being used by students of animal behaviour, a behaviour pattern performed 'out of the particular functional context of behaviour to which it is normally related' (Thorpe, 1951). When a drive is activated, modes of response related to it tend to be evoked; but, if the drive becomes strong, 'sparking over' may occur, and other modes of response related to other drives may appear as displacement activities. When a male stickleback, for instance, encounters another male, he begins to dig in the sand. Digging is a component of courtship and nest-building behaviour patterns, and not of patterns of aggression, and is, therefore, out of context. Again, a loud noise may elicit mating behaviour in some birds. These displacement activities tend to be 'incomplete, eccentric or imperfectly oriented' (Armstrong, 1950).

Displacement activities are to be regarded as substitute means of discharging 'excitation' when discharge through the normal channels of adaptive activity is prevented. When discharged vicariously, excitation may be reflected in activity which is inefficient, diffuse and poorly organized, but which forms part of behaviour patterns more or less closely associated with the drives which have been frustrated. For instance, there is substantial evidence in animals of the association of sexual and aggressive behaviour, and aggressive behaviour tends to occur when sexual drives are frustrated, and vice versa.

Psychologists, notably Tolman (1932) and Freeman (1948) in recent years, have often resorted to such a concept as the 'vicarious discharge of excitation', however dubious the theoretical implications, in order to explain aberrant or disordered behaviour. As an explanation, the concept is an attractive one, but facile, for the theory is sketchy and indefinite, and there is no neurophysiological evidence in support of it. However, there is reasonable expectation that further research into animal behaviour will lead to a more precise, and therefore more useful, definition of the class of behaviour now being called displacement activity. Such a wide variety of behaviour could at present be so classified that the classification has little value.

Tinbergen (1951) gives as examples of displacement activities in man: the yawning, lighting a cigarette, handling keys or handkerchief, scratching behind the ear and the several counterparts of preening which occur when adaptive activity is prevented. A more controversial example mentioned by Tinbergen is the sleep into which patients may suddenly and unexpectedly fall during an attack of intense anxiety.

The need for care in attributing aberrant activity to the vicarious discharge of excitation is well illustrated by a fallacy in one of Freud's earliest theories. Noting how commonly disturbances of sexual activity occur in the anxiety states, Freud attributed causality to the sexual disturbances and argued that the other symptoms of the anxiety state result from the failure to discharge sexual excitation normally. That is to say, the frustration of sexual drives is made primary. Yet, as Freud recognized, after he had gained some experience of the war neuroses, disturbances of sexual life are as-

sociated with the symptoms of anxiety even when the causes are quite clearly non-sexual. They are then to be regarded not as causal but as due to the suppression of responses related to sexual drives when other, non-sexual drives are strong; i.e. the sexual disturbances are secondary. This confusion in deciding upon causal relationships arises, it should be noted, from the failure to define the external conditions in which the illnesses occur.

A similar fallacy arose when Freud argued that in neurasthenia frequent masturbation is the cause of other symptoms such as tiredness, lack of concentration and forgetfulness. More probably, however, masturbation is then a true displacement activity, other non-sexual, secondary drives being frustrated, and non-sexual excitation being discharged in masturbation as an 'incomplete, eccentric and imperfectly oriented' pattern of mating behaviour. Behaviours of this kind can be evoked in laboratory experiments by intense, frightening and non-sexual stimulation. In human patients, masturbation, indecent exposure and other incomplete forms of mating behaviour seem to occur as displacement activities when anxiety of non-sexual origins becomes intense, as it may do in psychosis.

Resolution of conflicts

So far, classes of behaviour have been mentioned which occur when a single drive becomes strong and is frustrated, but there are other classes of behaviour which represent compromises in a conflict between drives. The drives which determine behaviour outside the laboratory are usually neither single nor simple, and the behaviour which is elicited may be directed towards the satisfaction of one drive without reducing another, or at the cost of some increase in another.

In Masserman's (1943) experiment, for instance, an air-blast is made to impinge on a cat's neck as he is about to open a food-box, as he has learnt to do in response to a visual or auditory stimulus. Thereafter this stimulus signifies to him impending danger of air-blast, and he shows signs of fearful anticipation whenever it occurs. These signs subside if he is allowed to leave the cage in which the food-box lies. By staying out of the cage, he avoids the danger of air-blast, and in this way the drive is reduced. In this sense the avoidance of the danger situation is satisfactory, but it is unsatisfactory in the sense that it prevents him from feeding. At least one of the cats so treated by Masserman developed a more general avoidance tendency and refused to eat even when he was offered food outside the cage. His refusal continued although he lost weight and became emaciated. This resolution of the conflict, reinforced, one may suppose, through reducing the anticipation of the air-blast, is evidently non-adaptive in relation to his nutritional needs.

Some forms of neurosis belong to the same class of behaviour. In anorexia nervosa, for instance, the patient, who is usually a girl in her late teens or early twenties, refuses to eat, losing weight in consequence to a degree which may be alarming. She does so, it seems, because by not eating she avoids dangers, whose nature is obscure, but whose presence is shown by the anxiety displayed if she is forced to eat.

In the complex external conditions of adult life, there are few modes of response which can be fully satisfactory compromises in a conflict. Nearly all are satisfactory in one respect, but unsatisfactory in others. When a compromise, such as the avoidance of food in anorexia nervosa, is unsatisfactory in an important respect, it may be described as neurotic, especially if it involves the 'renunciation of a function which gives rise to anxiety' (Freud, 1926). Neurotic compromises have the characteristic that the immediate effects are satisfactory, where the effects which are unsatisfactory are remote.

It is of interest to inquire how the mode of resolution of a conflict is determined, and why neurotic modes of resolution occur. At least part of the explanation is to be found in the theories of learning which have been elaborated in long series of experiments on animals. In these experiments it has been established that there is a general tendency

for the immediate effects of a response to outweigh the delayed effects. That is, the more closely the effect follows upon the response, the more is the tendency to make the response reinforced. This is the principle known as the 'gradient of reinforcement' (Hilgard & Marquis, 1940). Thus the tendency to make a response is reinforced by a reward occurring immediately much more than it is weakened by a painful effect which is delayed. The tendency to get drunk, for instance, is reinforced by the relief of tension and apprehension which alcohol gives; it is weakened hardly at all by the hangover and the other painful consequences, because these are delayed.

Many forms of neurosis can similarly be explained by reference to behaviour theory. Much less can be said, however, about the mechanisms of the compromises which seem to follow Freud's reality principle, that, because of the instinct of the ego for self-preservation, present pleasure is sacrificed for greater pleasure in the future. Undoubtedly behaviour conforming to the reality principle does occur, and thence are posed a number of interesting problems. Mowrer & Ullman (1945) have put forward an explanation based upon animal experiments.

Behaviour resistant to extinction

Finally, I shall refer briefly to the problem which is the topic of Freud's (1920) book, *Beyond the Pleasure Principle*, and which is posed by the occurrence of behaviour resistant to extinction. There are to be observed in mental illness many examples of behaviour which seem to belie the pleasure principle and the similar law of effect, because the behaviour persists although it does not counteract, or even aggravate, a psychological disturbance. Freud supposed that this persistence was to be attributed to what he called a 'repetition-compulsion'. But the question may be put into the different form: why do these behaviours not become extinguished as one would expect them to do through the operation of the second part of the law of effect?

The problem of the persistence of non-adaptive responses has proved hitherto to be one of the most intractable in psychopathology. Or as Freud (1940) wrote, 'It remains a question of the greatest theoretical importance, and one that has not yet been answered, when and how it is ever possible for the pleasure principle to be overcome.' But it is now possible to find several explanations in behaviour theory. First, the tendency to make the response may continue to be reinforced because it brings about an immediate reduction in the anticipation of a danger, although other drives are unaffected or are increased. Thus the patient suffering from anorexia nervosa continues to refuse food, although she becomes emaciated. Similarly, many other forms of neurotic avoidance response persist because they reduce anticipations of dangers, which exert a potent influence upon behaviour although they are hidden. Neurotic responses usually belong to the class of behaviour now known as instrumental avoidance responses, which, it should be noted, are particularly difficult to extinguish, because they are continually reinforced (e.g. Finch & Culler, 1935; discussed by Hilgard & Marquis, 1940).

A second explanation of the persistence or 'fixation' of non-adaptive responses has been advanced by Maier (1949), who claims to have established in experiments on rats that in insoluble-problem situations there develops a class of response which he calls 'frustration-instigated'. These responses differ qualitatively from the more usual class of 'goal-motivated' response, in that they cannot be extinguished by witholding reward or by administering punishment. However, considerable doubt has been thrown on Maier's claims by Russell and his collaborators (Russell & Pretty, 1951; Knöpfelmacher, 1952), and it does not now seem necessary to suppose that there is any such class of 'frustration-instigated' response.

The investigation of Maier's claims has uncovered a third explanation why some responses prove relatively resistant to extinction. Expectations about the ease of extinction have

previously been based upon experiments in which habits have been acquired by what is called 'continuous' reinforcement; if a response is rewarded every time it is made, it is said to be reinforced 'continuously'. But if the reinforcement is only partial, i.e. if the response is rewarded in a proportion of trials only, the habit is acquired more slowly. Once acquired, the habit proves much more difficult to extinguish (Jenkins & Stanley, 1950). Continuous reinforcement is a useful technique in the laboratory, but is an artificial simplification of the conditions of real life, in which partial reinforcement is the more usual condition of learning.

Similarly, the conditions in which learning is to occur are held as constant as possible in the laboratory. In real life they vary from occasion to occasion far more widely. If they are varied in the laboratory, learning takes place more slowly. Once acquired, on the other hand, the habit is more difficult to extinguish. Again, comparisons have been made in the laboratory between the spacing and the massing of trials, and it has been found that, when trials have been spaced, the habits acquired are more stable and more resistant to extinction. In the laboratory the spacing is relative, and the intervals between trials are short relative to what they may be outside the laboratory. Many of the habits acquired by humans, for instance, have been acquired in practice spaced over very long periods of time, such as months and years rather than hours or days.

All these observations make it necessary to revise our expectations about the ease with which responses occurring in patients should be extinguished. If extinction does come about, it is usually the result of 'massed' stimulation without reinforcement.

Conclusion

Many of the most puzzling symptoms of mental illness have counterparts in animal behaviour and can be regarded as but particular examples of classes of behaviour which have been studied in the laboratory. In order to explain these symptoms, one has to look beyond the restricted and specialized theories which have been elaborated as a result of studies on experimental neurosis. Indeed, reference has to be made to the whole body of contemporary theories of drives and of learning. It is hardly necessary to add that much of the application of behaviour theory in psychopathology is controversial, tentative and to be modified considerably as research goes on.

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NIGHTMARES

By J. S. B. LINDSAY*

The nightmare, one of the most agonizing experiences of almost unimaginable intensity, appears to have suffered a relative neglect in the literature. There are excellent papers and monographs on the nightmare, but much more has been contributed in studies of dreams.

In a previous paper (Lindsay, 1953), a method of studying dreams by abreaction was described. This paper presents a similar study of a nightmare and a dream in one patient, and a series of dreams and nightmares in another patient.

Case I

The first patient was a man 23 years old who had started walking in his sleep three years previously. A year later he began to develop what he called nightmares; he would get out of bed, shout and wave his arms about with concomitant feelings of terror persisting when he woke or was awakened.

On his wedding night a few months ago intercourse had been attempted, neither he nor his wife having had previous sexual experience. He was unable to penetrate and his wife felt considerable pain. Later the same night he had for him a new and unusual nightmare, a large rat was gnawing at his wife's face. He tried to claw it off and both he and his wife woke screaming. Further attempts at intercourse were deferred until a doctor was consulted, but satisfactory relations had not been established when the patient was seen. His ordinary nightmares had continued sporadically but it was the occurrence of another terrifying nightmare after unsatisfactory sexual intercourse that brought him under observation.

Five sessions were held. In the first, with a very light administration of ether-chloroform, he discussed the wedding night nightmare and some of his sexual difficulties. At one point, after a pause he said 'it was like a tooth being pulled out'. He was able to recall a short dream the subsequent night, and this was made the subject of the second session. His next dream was of 'having ether' and his remarks in the subsequent session were mostly about how nice it would be to be at home with his wife. In the fourth session, a very long dream was used, and the session was equally long. The material that was obtained seemed to be in agreement with the earlier shorter dream. The fifth session dealt with the nightmare of the wedding night. This session and the second one, dealing with the shorter dream, are recorded below.

In connexion with the material to be recorded some of the patient's phantasies about sex are worth noting. He had heard of couples being 'locked' in intercourse and having to be parted by a doctor. He believed that if a woman was that way inclined the man could not move, as the woman might swoon away. He had envisaged this happening to him on his wedding night.

In addition he had practised coitus interruptus because he 'felt he had to withdraw'. It was after the third session that he was able to ejaculate without withdrawal for the first time.

The dream studied in the second session was 'I found a sheep in a field all alone lying in fairly long grass as I walked by'. Under the ether he said that he was walking in a meadow surrounded by a dark and blank space all around him. He saw the sheep lying on its back with its feet in the air together with details of the oval ears and blunted nose. Next he mentioned his wife and reverted to his way of identifying the sheep by its small feet.

Q. 'Was there any action?'

A. 'The action of the hindquarter... the old chap was just going to look outside... just look in the (mumble)... take the (mumbled) down... Oh!'

(There followed a series of repetitive movements of the patient's own 'hindquarters').

The patient was asked about the hindquarter action but deviated back to the sheep's hooves, then returned to himself under a pseudonym of Pop, as a patient in hospital. The next part of the session dealt with the hospital situation, as it then existed.

He was referred back to the sheep again and asked why the sheep was on its back. 'Because... well I

* Psychiatrist, Ballarat Mental Hospital, Victoria, Australia. The cases were studied at Belmont Hospital, Sutton, Surrey.

imagine it was injured. "Oh!" I said, "it's injured. I'll have to do something." I don't think it was dead. There was no injury on the outside, maybe there was an internal injury. It may have eaten something. Yes, it may have eaten something...(Pause)...(He became somewhat restless)...Where was it injured?...Stomach, was it?...(overbreathing).' He continued to talk about animals when injured being unconscious and their legs going into the air automatically.

At the end of the session he came back to the here and now situation. 'It's all right now, there's plenty of room, plenty of room to have hospital treatment.' "He was asked what he was talking about and replied 'I was talking about *my* sheep, it personally belonged to me'; but there appeared to be a close link between his phantasies of the sexual intercourse and the abreaction situation.

It is possible here to see a theme of injury in relation to sexual behaviour. The injury is not external, but is something eaten and at this point the patient showed evidence of anxiety.

In the fifth session he was asked to talk about his 'gnawing rat' nightmare under ether.

'The rat completely covered her face...it was just ordinary, just a great big rat...even if I had...I couldn't...I couldn't. There's fur all over my wife's face, grey colour...(some abortive movements of hands)...It's all right now...A rat with grey legs, tearing the...tearing the...tearing the flesh, tearing the flesh, tearing the flesh away like...'

Q. 'On the lips?'

A. 'Yes the lips really...only the skin, not the flesh part, only the skin, the outside part like, the skin of the outside part, the skin of it like...'

Q. 'The rat?'

A. 'The rat was sort of moving around between...seemed to be waiting for me, every time I moved, every time I took lodgings for me, the rat was there, whether I was there, whether I was inside the house or not....It seemed to be in between her eyes and mouth and crawling...although I couldn't see her eyes or chin. I could see part of her mouth, the top part of her mouth. I don't think I could see the nose, just the vague outline. The rat seemed to spring from nowhere and spring on to and cling on to her face. (Pause.) It was...stop...tear it off...tear it off...the rat has gone now. I couldn't think that much of it, I took it straight away to be a rat...'

Q. 'What did you see?'

A. 'All I could see was silvery greyish colour, sometimes a dirty dark colour, not brown. I can't tell how I knew it was a rat but I don't think I saw it's feet or it's face. I just knew it was a rat and tearing the flesh, tearing with his front paws. I didn't see its head or body, it was just there, the whole force of it seemed to be behind him...it was a male rat. I think my wife wouldn't need so much protection from a female rat, she would be in more danger from a male than a female as the male can do more harm.' (He was asked to describe what he saw of his wife's face and said the lips were V shaped, with a groove from above and a small nose just above.) He continued: 'I never saw below it, not really. I'm always interested but not really. The lips, they were just parted...and swept back on either side. Beyond the lips it was all my wife's face and the rat seemed to be clinging to her. The more the rat tore her flesh and eluded me the more I enjoyed it. The more I tried to catch it the more it eluded me. I never actually saw the flesh tearing and the greyish colour of the rat closed over her face.'

There is in this nightmare an obvious interpretation, a recapitulation of the trauma he inflicted on his wife at this first attempt at coitus. The rat at one point adopted a different role. It was no longer the rat tearing the flesh but the rat waiting for him. Later on he remarked that the more the rat tore her flesh and eluded him the more he enjoyed it. These two remarks suggest that the more important threat was danger to himself than to his wife.

Case II

The following material was obtained from a 27-year-old Irishman. He had an unhappy childhood and in the end left Ireland and his home to join the R.A.F. in 1944. It was while serving in the R.A.F. that the sleep paralysis started and this symptom has continued about twice a week up to the present. Every night he has dreams about death, of killing people or being killed, of being out for revenge by killing, of shooting his own father. He is restless, shouts and calls out in his sleep.

In the case history there are incidents when he threatened to kill his father, e.g. after the latter's criticism of his (the patient's) wife. There was one incident at the age of fourteen when the patient attempted to commit suicide to avoid the violent

punishment he expected to receive from his father and teacher for some misdemeanour. In the R.A.F. on guard duty, in the face of stress, he was 'trigger happy'. He nearly killed a fellow guard by firing his Sten gun when a Dakota crashed on the aerodrome. His first girl friend, Kathleen, died while he was in the R.A.F. He has since married.

During his stay in hospital he was treated with modified insulin and in a supportive manner. The killing dreams and sleep paralysis were investigated with ether and chloroform explorations with myself and a male nurse present. The first two sessions were entirely undirected, he was not directed to any subject but given permission to talk about anything. He started off in the first session as follows.

'No one is interested, no one, I don't care if the whole world knows it, it's me against the world and the world against me.' He continued to detail his troubles at some length. The next session continued in the same vein, too many enemies, best friend is my pocket, going round in a fog, change my mind, do this, do that, keep guessing and so on. His recall of this session later was of talking to himself, of dreaming.

The third session was undirected to start with and he said 'No-one will kill you, just tell the truth...(some unintelligible words...) everybody says the same thing, you'll be all right. Advice don't cost anything, don't give advice at all. No one will believe what you say.' He was then directed to talk about the dreams of killing.

'Sometimes I imagine I have a German Luger in my hands. I'm killing someone all the time. I'm killing someone all the time, I don't know why...(hits the bed)...Always the same thing...(hits bed)....My head seems to swim round and round and never seems to stop....'

Q. 'Is that in the dream?'

A. 'No. I'm going to kill someone or someone is killing me. Revolver in my hand. I can't think of anything else, I can't think of anything else, just death, death, just death, death all the time. Just a German Luger in my hand as though I was going to kill someone or someone is going to kill me. I just dream of it. I just keep on repeating things....Does anyone know about these things? What is life? What you make it. What is death? What you make it. Some say life is better than death, some say death is better than life.' He continued to discuss this topic for some time. Later on 'That dream is always there. I have the Luger...everytime...can't sit down and close my eyes, I dream of death. I dream of death. Does anyone know why?...It's only when I wake up, the dreams wake me up and I'm afraid of my own shadow, afraid to move...."Go back to sleep, it's only a dream" Ha! Ha! Imagine it! You realize what you are dreaming about and you wake up. It makes you with a bloody big revolver in your hand. You just kill a person and then wake up. Up to Assizes....Judge....No Mercy.'

Later on his recall of this session was as follows: 'Guess I was dreaming, all the time, of death, like I do any time I close my eyes.'

The next session was directed to the same dream. The following extract was recorded towards the end of this session. He was talking about having no interest in life, not caring if he died to-morrow. 'What interest in life? I got a wife, babies, snooker and music. The most important thing in life is what you want, you keep dreaming of it. You never can get the right answer. I don't get the right answer...something is going to happen, something is going to happen somewhere...sometime. I'm scared....I'm not scared of anything. When you keep on dreaming of a revolver...(some inaudible words)...superman. You have this revolver. No one must (use it —?) to achieve anything. So long as you achieve what you want. If I had a gun I would kill a lot of people. What's the use in thinking of killing, you'd be sorry if you did.' He returned to the judge and punishment. 'You feel you must do something. You don't know how to get on. You stay in one position trying to find a way of escape and this gives you a certain amount of protection.'...'Kill?...you enjoy it and go on because you enjoy it...not since the R.A.F....Taffy said "What do I do if the Germans come over the wall" I said "Kill or be killed". She said "You're strange. I would just keep firing away." Taffy doesn't understand.'

There was no recall of this later on. Taffy is a fellow patient in the same ward, but the identity of 'she' was not established.

The next session was the day after an attack of 'sleep paralysis'. The repetitive dream was used first with a similar result.

'Everytime I close my eyes I just dream I'm killing someone, sometimes a man, sometimes a woman....I keep on dreaming I am killing, everytime I keep on dreaming of murder....'

Q. 'What about these "attacks" now?'

A. 'I just lie down, I don't expect them, I just lie still, it's just like I am frightened to death. I want to move and can't move, I want to talk and can't talk, just like you're scared, too scared, too stiff. I just lie there, I just lie there all the time, I just lie there and can't move, can't move...it's hopeless, I just lie there...and can't move...I don't know what's going on when I get these attacks. I keep getting them regular. I can't stop them, they come when I don't expect them. I must just lie there. I can't do nothing, I just lie there.'

There was no recall of this session. In the next session direct intervention was used, after a period of undirected talk about dreams and killing.

Q. 'How do you kill them?'

A. 'With a revolver in my hand.'

Q. 'mmmm?'

A. 'A German Luger.'

Q. 'mmmm?'

A. 'A revolver, a German one.'

Q. 'mmmm?'

A. 'A revolver.'

Q. 'You haven't got one.'

A. 'I haven't got one. QUIET! (shouted) quiet'!

Q. 'Why "Quiet"?'

A. 'In the dream since I was so high, if I went to the pictures it just went on all the time...shooting one with a revolver.'

Q. 'Whose revolver?'

A. 'Mine. No one else has it, no one takes it away from me.'

Q. 'Is it part of you?'

A. 'Of course! It's part of me, it's part of me.'

Q. 'Which part?'

A. 'I don't know which part, I don't know which part (hits bed) I didn't know which part (hits bed), I don't know which part (hits bed)...(unintelligible) (hits bed). Why doesn't he stop talking, stop that noise! Quiet!....'

Q. 'Why "quiet"?'

A. 'Oh! My headache! Stop that noise! Some people like making a noise. Smash the whole lot up, I like making noise, I like creating noise. I like making noise myself. Of course it's death, I know it's death....Why couldn't you be quiet? QUIET!! (shouts and hits bed)...(pause).'

Q. 'What about the revolver?' (There was no reply until the third time of asking.)

A. 'It's something to protect you (unintelligible). Keep on about revolver every night, just about revolver. I've got to protect me from no ordinary person. It's the best friend that I've got, protects me from a lot of persons. Revolver is something, people laugh at it....It is a part...a revolver is the man's best friend, because it can keep people away. The only friend a man has got. In my dreams the revolver is my best friend and no one can take it away, it is the best friend I have. I dream about it every night. I dream about it, I have it in my hand and I am killing someone, sometimes it is just people that I dislike and are against me, sometimes I do it just for the fun of it.'

Q. 'Where?'

A. 'In a house...in the main street, in the main street (hits bed) shoot them right in the guts, shoot them in the guts to make sure they're dead. Why do I have to go on doing it, why do I have to go on dreaming it?'

The next session was started by direction to the last part of the previous session.

'I've got a revolver and I'm shooting at someone, someone who does something wrong to me, I keep on, sometimes one, sometimes four, sometimes a whole lot just to make sure they're dead, just to be sure they're dead. I've caused no one any harm. Keep on doing the same thing, the same thing.' He continued in this vein for some time. Later on he continued to repeat 'I'm just about fed up with the whole blinking lot'. He continued to mutter. I said I couldn't hear very well. 'Keep quiet (hits bed). What's the use? (hits) I don't know what you're talking about. Quiet! Quiet! (hits bed) QUIET!!! (hits)...Quiet! (pause) Dreaming...what time is it? Dreaming....I start dreaming... dreaming all the time, some people might think it's funny, it's not funny at all, it can't be funny, some people might think it's funny, but it's not funny at all. It can't be funny.'

Q. 'What's funny?'

A. 'Keep on dreaming about the same thing.'

Q. 'What "thing"?'

A. 'Killing people, killing people in dreams (hits) I don't think it's funny. I've got to live with it all the time, I've got to dream it all the time. I've never caused no one any harm (hits). Why must I go on?'

Q. 'What about the dream then?'

A. 'Dream? Could be anyone, could be my throat. I've always wanted to kill someone, no matter who it is. I know I've a gun in my hand, I wish I could kill anyone. I'm always killing someone else.'

He was then questioned about the killing, and the fact he could never get rid of the body. The identity of the body was discussed.

Q. 'Is it anyone you know?'

A. 'Sometimes my own people, sometimes my own father, sometimes I dream of killing him, he was no good to anyone, never any good, never any good to anyone. He should have died years ago, years ago.'

Q. 'Is he one that is killing you?'

A. 'Quiet! Quiet! (hits bed).'

Q. Repeated.

A. 'He's killing us all. Quiet! Quiet! (hits) Why don't you be quiet, why don't you be quiet? What's the use of trying, no use going on like this.' (He continued to talk of details of parental rows, his father's threats to commit suicide but lapsed into silence.)

Q. 'What have you been talking about?'

A. 'I wasn't talking to anyone, was I?'

Q. 'You were telling someone to be quiet.'

A. 'Was I? I don't know who that was.'

Q. 'Was there a noise?'

A. 'Must have been someone. I keep on getting a noise in my head, a noise round in my head, a noise round in my head like a train, the noise seems to be there. A pain in my head all the time, seems to be there all the time.' (During this he got off the bed, stood up with eyes closed, took a few paces towards the table and chair at which I was seated, returned back to the bed. He sat on the bed, rubbed his still closed eyes, put his head on the pillow, sat up again and rubbed his eyes open.) 'I was just dreaming. People I kill they're there all the time. Kathleen is dead, don't talk about the dead. I didn't kill her, I didn't kill her (tears) she died of heart in hospital on ... 47. I was going to marry her, then she broke it off and then I heard she was dead. I was in the R.A.F. at the time. I can remember the graveyard, she was one of the best.'

He was then asked about sexual relations with Kathleen. His reply was 'perhaps I did'. From his statements at an earlier interview there then appeared to be no doubt about the occurrence of such sexual relations. At this earlier interview he had mentioned that sexual intercourse left him weak and tired for twenty-four hours. This he believed was due to the loss of the equivalent of four ounces of blood.

Two days later he had an attack of sleep paralysis during a doze in the afternoon, and that night had the following dream.

'I was in this room having ether treatment with Mr T (nurse) present. Dr. L. kept repeating questions and I answered. I then shoved Dr. L. back in the chair and Dr L. fell on the floor. I got on top of Dr L. and choked him to death. Mr T. called in other nurses and pulled me off Dr L., put me in a strait-jacket and locked me up.'

He was then asked to repeat the dream again as the abreagent was administered. 'I came in for treatment and after doctor kept repeating questions I tipped the chair up...uh! (hits bed)...doctor...(hits bed several times)...QUIET!!! (hits repeatedly)....Why don't you be quiet? (hits) Quiet! (hits several times) (pause, patient lies quite still)...(mumbles something and hits bed again). Stop it...stop it, stop it...(inaudible) nice...always nice to me, always nice to me...stop it. Stop it (inaudible) trying to be (inaudible). Dreaming what I was doing to you. What is a dream? What is a dream anyway? Huh! Dreaming of nothing, what's the use. Nothing I know, nothing I know, nothing I know. It's not me that wants it.' He then changed to the second person. 'You've got no friends, they're no good to you, all your friends, they are no good, no good to you, friends are no good to you.'

Q. 'Tell us the dream again.'

A. 'I was in this room, having treatment. Mr T. was sitting on a chair and Dr L. was asking questions. I tipped up the chair, got him on the floor and choked him....Quiet! QUIET!! (hits bed repeatedly and then lies still and relaxed) (pause and then hits bed again) I don't know' (he sits up, holds his forehead, shakes his head and lies down again) (pause).

Q. 'Tell us the dream.'

A. 'I don't know.' (laughs, pause).

Q. 'Tell us your thoughts.'

A. 'I am not thinking about nothing, I'm just looking out the window (pause).'

Q. 'Tell us the dream again.'

Patient repeats the same as above but gets to Mr T. pulling him off Dr L. before hitting the bed. There was no shouting 'Quiet!'.

Q. 'I notice you didn't use your revolver.'

A. 'I never thought, I never thought. Dr L. kept repeating questions I just tipped up the chair and got on top of you and choked you. Mr T. got the others and put me in a strait-jacket and locked me up (pause).'

Q. 'And no one was killing you?'

A. 'No...only the people I try to defend myself against...people...what they say...(hits)...people...people (laughs and hits)...people....'

Q. 'What do you think about the dream?'

A. 'Just imagine killing your own doctor' (laughs, pause).

Q. 'Mightn't a doctor do something terrible?'

A. 'No, you're not as good as all that. Must have a reason. Me, I just dreamed it' (laughs, pause).

This session was full of pauses and the above is nearly a complete record of thirty minutes. The patient said he was not talkative and laughed. He continued to say 'I don't know' and laugh at every further question. He was not aware of why he laughed. The end of this session was in this respect remarkably different from previous sessions.

The next session was conducted after the next clear dream. One attack of sleep paralysis had occurred in the interim.

The dream was as follows. 'I was sitting on a bench and Dr M. (Physician Superintendent) and the Matron came along. Matron said it was time I was in the ward. I told Matron where to get off as it wasn't half past eight. M. passed a remark and I killed him.' In view of the presence of the Matron in the dream I substituted a female nurse for the male nurse who sat in on the sessions.

The dream was repeated as the abreagent was administered. Details emerged about the remarks of Dr M. and the Matron but it was when the patient told Dr M. off that the usual sequence of hitting and 'Quiet!!' followed. He then lapsed into the second personal pronoun—'You keep on dreaming things, pleasant things and unpleasant things, they make you sweat, they make you spit. You wake up in a sweat, you wake up in a fright, you wake up in a fright. It ain't no joke at times.'

The dream was repeated and Dr M. said the patient was an Irish so-and-so. He then told Dr M. where he wanted him to go. This part was repeated again and each time there was the same 'Quiet!!' and associated behaviour. Then he complained of headache and made great attempts to sit up but each time fell back on to the bed. He elaborated the dream further. After the argument already noted, Dr M. and the Matron walked away. He followed and hit Dr M. on the back of the head with a half-brick. The Matron became hysterical, shouting the place down for someone to come. Then someone came and caught hold of him. He continued with generalities about punishment. Then 'Sometimes when someone is killing me I wake up scared stiff, dead scared and you can't move, just as though you're fighting the world alone.'

The patient continued to lie quietly, holding his head at times. Occasionally he tried to sit up but was unsuccessful despite what appeared to be considerable exertion. During this period I disregarded the patient and talked to the nurse, thus vaguely simulating Dr M. and Matron talking and walking away. In the end I returned my interest to the patient but he remained rather gloomy and disinterested. There was none of the hilarity that followed the previous dream.

The next dream was simply that the entire ward was blown up and everyone except him killed. In the subsequent abreaction instead of sitting and writing, the male nurse and I provoked the patient into displays of violence directed towards us. During the recovery period he was cheerful and smiling while the 'fight' was discussed with him.

Stern's theory of the catatonoid reaction

Stern (1951) has remarked that there is little uniformity in opinion about the nature of nightmares, not even about the terms to be used to describe them. Jones in his book *On the Nightmare* (1931) fitly describes what to most is the central feature: 'Imagination cannot conceive the horrors and the incomprehensible dread of this experience.' Two other cardinal features are suggested by Jones, a sense of oppression which interferes with respiration, and a conviction of helpless paralysis. The selection of respiratory phenomena seems to limit what is in actual fact a more widespread disturbance to but one part of the autonomic upset. Frequently the heart races, there is profuse perspiration, and other signs of autonomic overactivity.

In his most interesting paper Stern described three forms of primitive stress reactions to early infantile frustrations, namely, the excitatory reaction, the 'catatonoid' reaction and finally full shock leading in the end to death. The helpless paralysis of the *pavor nocturnus* he compared with the catatonoid

reaction and for Stern the element of paralysis constituted the core of *pavor nocturnus*. It would seem possible that in the face of some 'stress' in the dream, an excitatory reaction might be sufficient defence and wake the subject. If this excitatory defence were inadequate then the catatonoid reaction might be called into use and the responsiveness of the autonomic nervous system more severely tested. The conviction of helpless paralysis does not seem to be essential to a nightmare, rather the subject may be awakened by the excitatory reaction before the catatonoid response is reached.

Stern (1951) has defined the *pavor nocturnus* as a 'catatonoid reaction under the conditions of sleep more or less intermingled with the reactions pertaining to shock'. Thus the *pavor nocturnus*, i.e. with a central core of paralysis, is a catatonoid reaction to 'stress' the shock reaction and the shock defences occurring concomitantly.

In a study of a group of patients with 'sleep paralysis', all were able to recall nightmares that had occurred but which had not been associated with a sensation of paralysis. Some nightmares in their content suggested an impending state of paralysis, but this conviction of paralysis did not persist into the waking state as in sleep paralysis. Thus in one nightmare, the man dreamed he was being chased by men, he ran and they gained, he turned to fight but could only move his arms very slowly. He awoke terrified to find that he was able to move. Others have been observed to be restless during their sleep and to talk and shout, often without recall in the morning. Most have walked in their sleep before the onset of the attacks of sleep paralysis. One is said to have committed an act of arson while sleep walking.

These patients all conform to Stern's criterion of a sense of paralysis which persists into the awakening stage. They clearly show a catatonoid reaction. How are the other phenomena to be described? Without paralysis Stern would not call them true *pavores*. It seems probable that in general motor activity they correspond more to the excitatory reaction, just as the 'paralysed' correspond to the catatonoid reaction.

This brings up what seems to be essentially a verbal problem. Stern has described excitatory and catatonoid reactions. From the reading of Stern's paper and from what has already been indicated, Stern seems to be using the word catatonoid to mean 'like an akinetic catatonic stupor', whereas it might equally well mean 'like a hyperkinetic catatonic excitement'. For simplicity and to avoid any unwarranted though intriguing comparisons with psychotic terminology, the terms 'akinetic' and 'hyperkinetic' would appear to be sufficient to describe and differentiate the reactions in question.

Stress reaction in sleep

The problem has been reduced to one which concerns akinetic and hyperkinetic reactions to stresses under the conditions of sleep. There is the 'shock reaction' to the stress and there is also the 'defence reaction' against the stress. In describing this defence as akinetic or hyperkinetic, the other autonomic defences and disturbances must not be overlooked; the whole defence is the homeostatic response to the impairment of the internal environment.

The term 'internal environment' is perhaps quite apt though not in its usual meaning. Under conditions of sleep the external environment no longer affects the sleeper. He is no longer in contact with the world of outer reality. He is reduced to a state where his only contact can be with the inner world of reality. This 'is an unhappy world in which one is tied to bad objects and feeling therefore always frustrated, hungry, angry, guilty and profoundly anxious. The good objects are retained as memories, but the bad objects set up an inner psychic world which duplicates the original situations' (Guntrip, 1952).

The homeostatic response is used in this context to indicate that there is a defence against any changes of this internal environment, of this world of inner reality. In pro-

tecting himself against the dangers that may occur in this world of inner reality the dreamer may be awakened.

There is some 'stress' in the world of inner reality which produces the immediate 'shock' response. The defence reactions until the dreamer awakes also occur in this inner world of reality and both the 'shock response' and the defence reactions add up to the psychological experience of the nightmare. It is, as Stern puts it, both the dying and the defence against dying that are represented in the nightmare terror.

The nature of this stress in the present world of inner reality seems to be of some importance and interest. There is some evidence as to the nature of this stress. In a previous study of dreams (Lindsay, 1953) some indications of a phantasy of sexual intercourse as killing were obtained. This theme of death is again clear in the material reported here. Sometimes it is death to others, sometimes the dreamer is killed.

There are indications of phantasies related to the *vagina dentata* and *fellatio*. There is the suggestion from one man that his sheep had died from something it had eaten, and the same man has 'the rat (tearing flesh) waiting for him'. In connexion with the oral phantasies it is perhaps not out of place to note that one of the commonest conventional 'causes' of dreaming is some unusual food or excessive eating before going to sleep.

Such phantasies of *fellatio* or *vagina dentata*, are in a sense still related to the outer world of reality. These are recorded in terms which are relevant to the present, in terms of adult sexuality. The original situation which is duplicated in the inner world of reality may have concerned infantile sexuality. A translation into terms of adult sexuality is not necessarily the only, nor the best translation, for each and every person.

In the dream there is an inner world in which the situation is reduplicated and the reduplication needs no reference to the present outer world of reality. The situation is precipitated by relationships from the 'here and now', but the working out of the situation is carried out in a world unrelated to present external reality.

Bad objects exist in the present world of inner reality and the dreamer dreams of the here and now situation in terms of this inner world (see Fairbairn, 1952*a*, *b*).

The 'stress'

The problem of the 'stress' may be recast as the problem of the relationships between the internal objects and the ego. The bad object may be in the same relation as in the original situation. The dead are dreamed of as being alive.

As suggested there is in the nightmare a threat—a stress—which produces a shock reaction and shock defence. Stern (1951) says this stress is the danger of death. 'The patient experiences the process of dying and is saved from real danger by waking up.' The killing and being killed are clear in the material here reported. The threat would appear to be that of being killed, of extinction of the ego.

The mode of this dying, this extinction or loss of ego, would appear to be concerned with the relationship of the ego to the internalized bad objects. In a world confined to inner reality only, it might be suggested that the ego becomes extinct by being incorporated into a bad object, by being swallowed up and no longer existing of itself.

In this connexion, Fairbairn (1952*a*) has recently put forward some interesting suggestions about ego structure; he postulates (pp. 94 *et seq.*) a multiplicity of egos with various relationships between themselves and to other intrapsychic objects. Such an hypothesis is very relevant to any theoretical discussion of a postulated extinction of or loss of ego. Fairbairn states (p. 52): '*Loss of the ego* is the ultimate psychopathological disaster which the schizoid individual is constantly struggling, with more or less success, to avert...,' and again (p. 113) in 'loss of the ego structure which constitutes himself'.

Fairbairn starts with an original unsplit ego

(p. 178): '. . . ambivalence must be regarded as a state first arising in the original unsplit ego in relation to the *internalized* preambivalent object.' He describes how the 'unsplit ego is (then) confronted with an *internalized ambivalent object*'. The further development of this unsplit ego is clearly indicated in the description of the 'pseudopodia by means of which it (the ego) maintained libidinal attachments to the objects undergoing repression' (p. 112) and these pseudopodia represent 'the initial stage of a division of the ego'.

The actual origin of this ego may involve an even earlier stage. First there is the complete and absolute identification of intrauterine existence, with complete absence of any differentiation. It is an easy matter to establish when the physical body does become individual and unique. It is finally separated by the cutting of the umbilical cord. From this moment psychic differentiation can begin and a lessening of the absolute degree of identification occur. From a state of a completely non-independent existence, a state of being not 'I' and absolutely incorporated within the mother, the infant can give birth to his own individual psychic existence. An ego is born; and all that has been written about the anxieties and psychic traumata of parturition could very well refer to the development of the ego rather than to the physical processes of birth.

Fairbairn notes (p. 47): 'In so far as (this absolute) identification persists after birth, the individual's object constitutes not only his world but also himself.' The individual is still entirely incorporated in his object, just as in intrauterine life his physical body was incorporated. In the further process of differentiation from this absolute identification the ego, hitherto entirely incorporated, sets out 'pseudopodia' (to use Fairbairn's word) which test reality. This is manifest first in the oral needs for incorporation. In this manner 'the object in which the individual is incorporated is incorporated in the individual' (p. 42).

In the face of such reality testing the individual is faced with two alternatives. In a kindly reality situation it is not difficult for the 'pseudopodia' to maintain a reality contact. Then in the face of a hostile world it is easier to retract the 'pseudopodia'. Fairbairn uses a different simile to describe rather comparable events (p. 39). He likens the patient to a 'timid mouse, alternately creeping out of the shelter of his hole to peep at the world of outer objects and then beating a hasty retreat'. This description might well apply to the alternatives suggested above. In one alternative there is manifestly a wish to be 'I'; in the other there is a wish not to be 'I'.

Jones (1931) states that 'the malady known as nightmare is always an expression of intense mental conflict centring about some form of "repressed" sexual desire'. In this paper the nightmare is considered from the point of view of existence or non-existence of the ego. Problems of life and death are dealt with by Jones in his chapter on vampires. After discussing the wish or fear that the dead should return to the living, he continues, under a general heading of 'love motif'—'This motif of the living being drawn by his love into death where the two parted ones are for ever united occurs in a great number of narratives, dramas, and poems, as well as actual beliefs' (p. 108). On the next page: 'We next have to mention a still more remarkable perversion of the love-instinct, namely a wish to die together with the person one loves.' In both these but particularly in the first quotation there is implied the idea of a loss of existence by being united to, or incorporated within, the object.

Ego-object relationships

Following this discussion it is necessary to turn again to the ego-object relationships in dreams, that is, in a world restricted to inner reality. The ego differentiation process may be reversed. The uniqueness of being 'I' may, in the face of stress, lapse back into a 'non-I' state, into a state of complete identification. There may be a wish to be 'I', or in the face of stress a wish for re-incorporation, a wish, that is, not to be 'I'.

In this dream world there are good and bad objects. As a consequence there are four possible relationships:

(1) 'I' wishing to be 'I' in relationship to a good object.

(2) 'I' wishing not to be 'I' in relationship to a good object.

(3) 'I' wishing to be 'I' in relationship to a bad object.

(4) 'I' wishing not to be 'I' in relationship to a bad object.

The first relationship (1) appears to be satisfactory and would lead to adequate ego gratification. Regression to a 'non-I' state would seem to be a consequence of the second relationship (2).

The third appears to lead to the answer of 'I' remaining 'I' and hating the bad object. The following short excerpt suggests that the ego wishes to be 'I' because of the gratification that may arise, even in hating and killing a bad object. The patient was a rather unstable 'psychopathic' ex-serviceman who, in describing his war experiences said '(It's) a tremendous feeling to blast someone off the face of the earth...a section falls in...there is a power in your gun to blast someone off the earth...you're creeping...stalking...listening and listening...the exultation...no fear...you're in it and you can't get out of it.'

The fourth relationship leads to two tendencies, neither of which is conclusive. 'I' may tend to stay 'I' because of the danger inherent in incorporation in a bad object, or 'I' may tentatively risk the dangers of incorporation because of the strength of the wish not to be 'I'.

It would seem that these two relationships, the third and fourth, correspond in some degree to Fairbairn's two fundamental types of reaction in bad-object relationships, the depressive and the schizoid respectively. In the former relationship (3) there is a 'rejecting (rejected) object' to be destroyed. In the latter relationship (4) there is the hunger for the 'desirable deserter' and there remains the 'in and out' or continual alternation between 'merging his ego in and the differentiation of it from the person he loves (wishes to love)' (Guntrip, 1952).

One escape from this dilemma is for the ego to maintain its identity, to reject the wish not to be 'I' and to attribute such a wish to the object. The ego, originally wishing to be incorporated by the object, may now view the object as wishing to incorporate and destroy the unique existence of the ego. The desirable deserter is deserted and blamed for the deserting and for the desire.

The alternative solution is to risk re-incorporation. In this the existence of the ego is destroyed. The existence of the bad object as an object apart from the ego is also lost and this might be interpreted as destruction or killing the object.

In the nightmare it is suggested that the apparent actuality of this process of extinction by re-incorporation is the 'stress' which produces the shock reaction and the shock defence in the inner world of reality. One dream of the second patient (p. 15) starts off with a wish for re-incorporation within the object. He dreams he is having a treatment in which he is unconscious and the doctor is in full control. Then there is a suggestion that the doctor is a bad object (Dr L. kept repeating questions) but immediately the situation is more clearly portrayed. After the wish for re-incorporation he kills the incorporating object and then is himself symbolically killed (paralysed, put in a strait-jacket).

There is also the reverse side of the picture when this patient says 'sometimes when some one is killing me I wake up scared stiff, dead scared and you can't move'. It is suggested that this is an akinetic reaction and the result of the dreamer being killed as a consequence of his wish. The process is a passive one. The hyperkinetic reaction is seen when the dreamer kills the object and at the same time risks and loses his own existence.

In the quotation in the last paragraph a change of pronoun from the first to second person is evident. The significance of this will not be discussed at length in this paper except

to note that the phenomenon may be related to the difference in affect between dreams and nightmares. The *Angst* of the nightmares is related to the actuality of the threat to ego existence. In dreams the ego only participates as a recording agent or, as Fairbairn puts it (p. 85), the central ego 'sits back in the dress-circle and describes the dramas enacted upon the stage of inner reality without any effective participation in them'. Thus in the above quotation—'I am scared stiff'—the ego is in the actual situation, then suddenly the ego is no longer participant and 'you can't move'.

Palmer (1951) introduces a similar concept in a paper on abreaction. First, there is the actuality which is described as 'Me, lying on the couch'. Then there is a split into 'Myself taking part in the re-enacted episode' and 'that which is watching'. In this concept, as in Fairbairn's, there is a split into participant and non-participant parts. The non-participant role Fairbairn calls the central ego in the context of the theoretical structure he puts forward. Palmer names it after the apparent function, the 'watcher'.

The participant part Palmer describes in operational terms. After making clear the distinction between the central (non-participant) ego and auxiliary egos Fairbairn makes a further analysis of the non-central ego, his auxiliary egos.

A similar distinction between participant and non-participant roles could also be put forward in terms of a concept of an objective psyche. Fordham (1951) has suggested the idea that the self or image of the whole is as much an object as the good or bad objects of the id.

In this sense the ego, central ego, or watcher in a non-participant, non-affective role sees enacted the dramas upon the stage of inner reality between the self and non-self objects, between the auxiliary egos and exciting and rejecting objects (Fairbairn) or as Palmer puts it, 'Myself taking part in the re-enacted episode'.

This may be the relationship variously described in the indifferent dream. In the nightmare there is the actuality of participation. Nightmares cannot be called non-affective.

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STUDIES IN PSYCHOPATHOLOGY USING A SELF-ASSESSMENT INVENTORY

III. SOME NEUROTIC GASTRO-INTESTINAL SYMPTOMS: FUNCTIONAL DYSPEPSIA IN WOMEN

BY JOSEPH SANDLER* AND ALEX B. POLLOCK†

In a previous paper (Sandler & Pollock, 1954*a*), an investigation into eleven gastro-intestinal complaints was described. One hundred neurotic patients (fifty men and fifty women), attending the Tavistock Clinic, completed the Tavistock Self-Assessment Inventory (Sandler, 1954), and the eleven 'gastro-intestinal' items were reduced to two distinct patterns or factors by means of factor analysis.

The first of these was a clinically coherent pattern of complaints which we have called *Functional Dyspepsia*. The items most highly associated with this factor refer to 'stomach trouble', stomach-ache, indigestion, 'wind', and 'attacks of biliousness'. The second factor has been labelled *Defaecatory Difficulty*, and is discussed in a later paper (Sandler & Pollock, 1954*b*).

The study previously reported refers to the correlates of functional dyspepsia (factor A) in the population of fifty men. The large number of items in the inventory were systematically correlated with the factor, and of the 865 items which do not refer to gastro-intestinal complaints, 138 were found to be significantly associated with the dyspeptic pattern. These items suggested a psychological picture of 'nervousness', showing itself in many specific anxieties. It was also clear that dyspepsia was associated with a number of other 'somatic' complaints, and that these were not confined to sensations referred to the gastro-intestinal system. The conclusions were drawn that functional or 'nervous' dyspepsia, at least in men, was part of a larger somatic 'symptom-complex', and that any theory which assigned a special psychological meaning to dyspeptic symptoms would be inadequate unless it explained the other 'somatic' complaints associated with it.

The present paper is devoted to the results obtained for the fifty women, and to a comparison of these findings with those obtained for the men.

The women had a mean age of 28·7 years, with a standard deviation of 6·9 years (range 18–51 years). The scores for *Functional Dyspepsia* were calculated in the same way as for the men, and the difference between the sexes in respect of their scores in this factor was not statistically significant.

Two measures of association between the factor and the items of the inventory were used. The first of these is the point-biserial correlation coefficient ($r_{p.bis.}$), while the second (r_c.) is a coefficient corrected for the variation in the frequencies with which the items were reported. This latter coefficient may be interpreted in the same way as the usual biserial correlation coefficient, and ranges from −1·00 to 1·00. The theoretical assumptions behind the various statistical procedures have previously been described (1954*a*).

The items of the inventory significantly associated with factor A for the fifty women, are listed below. They have been divided into three groups, based upon their statistical significance. The first contains items which are significantly associated with the factor at the 0·1 % level (Table 1), the second at the 1 % (Table 2), and the third at the 5 % level of confidence (Table 3).

* Research Psychologist, Tavistock Clinic.
† Psychologist, Tavistock Clinic.

Table 1. *Items significantly associated with factor A at the first level of confidence* (0·1 %)

Item		$r_{p.bis.}$	r_c.
1	I feel weak or tired most of the time	0·47	0·69
2	I find I have to take many patent medicines or tonics	0·59	0·66
3	I sometimes have pains which move from one part of my body to another	0·58	0·66
4	I do not think I get the right sort of food	0·51	0·61
5	At times I feel the compulsion to count things	0·52	0·60
6	I think I am in as good bodily health as most of the people I know	−0·46	−0·60
7	I worry about getting accidentally hurt	0·45	0·59
8	I sometimes worry that I may want to pass water at an inconvenient time	0·51	0·58
9	I sometimes wish I could change my sex	0·48	0·57
10	I am very rarely excited or thrilled	0·52	0·57
11	My skin seems to be more sensitive than average	0·50	0·56
12	I have to go to pass my water (urinate) unduly frequently	0·47	0·54
13	I find I have to stop and think before doing even the smallest thing	0·47	0·52
14	I am generally physically fit and in good bodily health	−0·46	−0·52
15	I find it difficult to ask other people for information	0·45	0·51
16	My mouth has a tendency to go dry when I am talking	0·45	0·51

Table 2. *Items significantly associated with factor A at the second level of confidence* (1 %)

Item		$r_{p.bis.}$	r_c.
17	I sometimes deliberately scratch or bite myself so that it hurts	0·41	0·75
18	Sometimes I feel so depressed that thinking is difficult	0·42	0·72
19	I sometimes feel that someone is trying to hypnotize me against my will	0·41	0·67
20	Talking to people about my personal feelings makes me acutely uncomfortable	0·43	0·64
21	My memory often lets me down	0·41	0·61
22	I often feel lonesome even when I am with other people	0·36	0·59
23	I sometimes worry in case someone I am fond of will die	0·41	0·58
24	I suffer from more aches and pains than most people	0·41	0·57
25	I feel as if I have a lump in my throat most of the time	0·43	0·56
26	I sometimes find myself perspiring even when I am not hot	0·37	0·55
27	I sometimes feel as if I might faint	0·41	0·54
28	I sometimes feel like vomiting when I get excited or nervous	0·44	0·54
29	My mind sometimes seems to stop suddenly when I am in the middle of talking or thinking	0·38	0·54
30	I sometimes fail to cope with simple tasks which others seem to do easily	0·44	0·53
31	I often feel my heart fluttering or thumping even when I have not been exerting myself	0·39	0·53
32	I quite often feel as if things were just not real	0·41	0·52
33	Some part of my body hurts very easily	0·44	0·52
34	I cannot get to sleep if I have not done certain things in a special order	0·38	0·52
35	I sometimes seem to lose all sensation in my body	0·44	0·52
36	I am often worried in case I might vomit or be sick in public	0·38	0·52
37	I sometimes feel I want to hurt or injure animals or people	0·36	0·52
38	My opinions on many important issues are quite different from those generally held	0·43	0·51
39	I sometimes have an impulse to hurt myself	0·36	0·51
40	I tend to brood for a long time over a single idea	0·36	0·51
41	I feel that I probably have more fears than most people	0·37	0·50

Table 2 (*continued*)

Item		$r_{p.bis.}$	r_c.
42	I sometimes feel that other people can read my thoughts	0·41	0·49
43	The sight of food often nauseates me	0·43	0·49
44	I find I have sometimes to memorize numbers or count things that are not important	0·39	0·48
45	I find it difficult to have any sort of pleasurable feeling	0·41	0·46
46	I feel that I am constantly being discriminated against	0·40	0·45
47	On the whole I sleep badly	0·38	0·45
48	I have the feeling that people laugh at me behind my back	0·39	0·45
49	I often feel that the whole world is against me	0·38	0·45
50	I sometimes feel like destroying or smashing things	0·37	0·45
51	I look forward to my meals	−0·38	−0·45
52	I frequently have pains near the heart	0·37	0·44
53	I believe in a life after death	0·37	0·44
54	I dislike reading love stories	0·38	0·44
55	I sometimes 'lose my voice'	0·40	0·44
56	I can give praise freely where it is due	−0·38	−0·44
57	I am usually ill-at-ease with persons of the opposite sex	0·38	0·42
58	I have a constant fear that I might be dismissed from my work or job	0·37	0·42
59	Certain types of food disgust me	0·36	0·41
60	I enjoy 'window shopping'	−0·36	−0·41
61	I usually feel embarrassed when seen entering or leaving a lavatory	0·36	0·40

Table 3. *Items significantly associated with factor A at the third level of confidence* (5 %)

Item		$r_{p.bis.}$	r_c.
62	Sometimes I feel 'just miserable'	0·33	1·00
63	I sometimes feel myself physically attracted by members of my own sex	−0·28	−0·77
64	I feel anxious or worried about something nearly all the time	0·34	0·68
65	I can easily convince people even of the most unlikely things	−0·33	−0·67
66	Masturbation is a problem to me	−0·31	−0·66
67	I sometimes feel I would enjoy wearing the clothes of the opposite sex	0·35	0·63
68	Sometimes I wish I were the richest person in the world	−0·29	−0·59
69	I am sometimes so nervous or excited that I find it difficult to sleep	0·30	0·57
70	I sometimes experiment to see how much pain I can stand	0·28	0·51
71	I am in love with someone whom 'I worship from afar'	0·34	0·50
72	My behaviour does not usually show the feelings I have	0·29	0·49
73	The thought of sexual intercourse is repugnant to me	0·30	0·49
74	I very often have strong feelings of inferiority	0·29	0·49
75	I don't like old people	0·35	0·48
76	I tend to worry about my state of health	0·32	0·48
77	I sometimes hear voices without knowing where they are coming from	0·34	0·47
78	I tend to doubt what other people tell me until I can see for myself	0·34	0·46
79	There are times when I feel I would like to be whipped	0·32	0·46
80	I believe that I have a special mission in life	0·33	0·46
81	I find it difficult to concentrate	0·30	0·45
82	I feel I never get what I really want	0·33	0·45
83	I usually find it difficult to get started on things I have to do	0·34	0·45
84	I tire very easily	0·30	0·45
85	I am inclined to feel that everything that goes wrong is my own fault	0·31	0·44

Table 3 (*continued*)

Item		$r_{p.bis.}$	$r_{c.}$
86	I am sometimes unable to hear or see for a while, even though I am awake	0·32	0·44
87	I enjoy giving presents to people	−0·30	−0·44
88	I am always on my guard against people who are unusually friendly	0·33	0·43
89	I sometimes get depressed because I feel I have done wrong	0·29	0·43
90	I often daydream of being physically stronger than I am	0·32	0·43
91	I feel I have a heavy burden to bear in life	0·34	0·41
92	I think that 'true love' only exists in books and films	0·31	0·41
93	I constantly hesitate in case I do the wrong thing	0·29	0·40
94	I think I eat too much	0·31	0·40
95	I spend most of my spare time on my own	0·31	0·40
96	Reading is a problem to me	0·35	0·40
97	I feel I am often cheated	0·35	0·40
98	I am very gullible and easily taken in	0·32	0·40
99	People generally seem to like me	−0·29	−0·40
100	On the whole I look forward to the future with pleasure	−0·32	−0·40
101	I would like to be a great singer or orator	0·33	0·39
102	On the whole I feel I am more than usually dependent on others	0·31	0·39
103	I often find it very difficult to get my ideas across to other people	0·29	0·39
104	I spend very little time worrying about matters of love and sex	−0·30	−0·39
105	It is harder for me to be cheerful than it is for most people	0·31	0·38
106	I like to eat a lot of sweet things	0·28	0·38
107	On the whole I do not regard myself as 'grown-up'	0·31	0·38
108	I usually come off worst in a bargain	0·33	0·38
109	I occasionally have the thought of being attacked from behind	0·31	0·38
110	I am very uneasy when alone in a large open space	0·32	0·37
111	It is hard for me to act naturally in a group of people	0·30	0·37
112	I feel depressed to-day	0·32	0·37
113	When away from home I am usually concerned about when and where I get my meals	0·33	0·37
114	I understand what I read as well as I used to	−0·34	−0·37
115	I rarely or never enjoy going to parties	0·31	0·36
116	I find it difficult to settle down in any one employment or type of work	0·32	0·36
117	Sometimes my mind wanders so badly that I lose track of what I am doing	0·29	0·36
118	I feel ashamed of my personal problems and difficulties	0·30	0·36
119	I sometimes find it difficult to look other people in the eye	0·29	0·35
120	I believe that it is better to do nothing rather than risk making a mistake	0·31	0·35
121	I spend a lot of time daydreaming about the future	0·28	0·35
122	At times I get short of breath without having exerted myself	0·29	0·35
123	I have higher standards of cleanliness than the average person	0·32	0·35
124	I have strong likes and dislikes in food matters	0·28	0·34
125	I have peculiar and mysterious thoughts	0·29	0·33
126	For companionship I generally prefer members of my own sex	0·29	0·33
127	I believe there are such things as magic and the supernatural	0·29	0·33
128	I would feel uncomfortable if I were to be seen naked by a person of my own sex	0·28	0·33
129	I sometimes feel, without knowing why, that something terrible is going to happen	0·29	0·33
130	I sometimes buy books and then don't read them	0·29	0·32

Table 3 (*continued*)

Item		$r_{p.bis.}$	r_c
131	I enjoy meeting people	−0·28	−0·32
132	I enjoy playing with children	−0·28	−0·32
133	I sometimes find myself compelled to walk or step over cracks in the pavement in a special way	0·29	0·32
134	I feel I am greedy about food	0·28	0·31
135	I sometimes have queer feelings in some part of my body	0·28	0·31
136	I am often away from work through sickness	0·28	0·31

Examination of the items listed in Tables 1–3 shows that, as for the men, the factor is correlated with a number of other 'somatic' complaints (e.g. items 1, 3, 6, 11, 12, 14 and 16 at the first level of confidence alone). As has been stressed in the case of the men, any theory of the causation of functional dyspepsia in neurotic subjects must explain these associated symptoms as well, if it is to be convincing.

Conscious anxieties were found to be important in the case of the men, but although items 8, 23, 36, 41, 57, 58, 64, 73, 76 and 110 refer to conscious anxieties, these do not appear to be of the same intensity, nor perhaps of the same quality as those found to be associated with dyspepsia among the male neurotics. They suggest the 'worry' of the obsessional rather than the 'nervousness' of the anxiety hysteric. Indeed, the obsessive-compulsive component in these patients is more clearly present than among the men. The compulsion to count things (item 5) is not among those items listed for the men, nor is item 13. Items 23, 29, 34, 37, 40, 44, 78, 81, 83, 93, 113, 120, 123, 127 and 133 are also strongly suggestive of an obsessive-compulsive picture.

It is interesting that the split between idea and affect is clearly shown in a number of items. Item 10 is a denial of feelings of excitement, item 32 refers to feelings of unreality, and item 45 to the difficulty in having any sort of pleasurable feeling. In addition, items 35, 54, 92, and a number of others, are consistent with this difficulty. The items which refer to depressive feelings (18, 62, 89, 91, 100, 105 and 112) support the impression of strong guilt feelings among these patients. Noyes (1939) points out that 'Adolf Meyer has described a group of persons characterized by difficulty with decisions, doubts, rituals and fears and with anticipation of panic should fulfilment fail to be achieved. Anxiety and depression are common accompaniments. He has designated these reactions as obsessive ruminative tension states'.

In general, the pre-genital (more specifically, anal-sadistic) components are very marked. What is perhaps more ominous in these patients are ideas of reference of one form or another. Items 19, 42, 46, 48, 49, 77 and 88 imply paranoid feelings some of which could almost be psychotic. Masochistic wishes are clearly shown in items 17, 39, 70 and 79.

Briefly, it can be said that the disturbance of personality in the female patients with dyspeptic symptoms is severe, and is expressed in obsessional, depressive and paranoid traits. In this the picture contrasts with that found for the neurotic men.

No attempt has been made in this, nor in the previous study (1954*a*), to construct a specific 'psychopathology' behind the formation of dyspeptic symptoms. It is not clear whether, in fact, such a common psychopathology can be found, but it has been felt worth while to present the objective data in some detail as a set of observations which may be used, in conjunction with other evidence, as a basis for theoretical constructions.

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STUDIES IN PSYCHOPATHOLOGY USING A SELF-ASSESSMENT INVENTORY

IV. SOME NEUROTIC GASTRO-INTESTINAL SYMPTOMS: DEFAECATORY DIFFICULTY IN MEN AND WOMEN

By JOSEPH SANDLER* and ALEX B. POLLOCK†

An analysis of eleven items of the Tavistock Self-Assessment Inventory (Sandler, 1954) has yielded two factors or symptom-patterns, for a population of 100 neurotic subjects. The first of these, identified as *Functional Dyspepsia*, has been considered in some detail (Sandler & Pollock, 1954*a*, *b*). The second has been called *Defaecatory Difficulty*, and the three items of the inventory with the highest saturations for this factor are

	Saturation
I often feel pain when passing a bowel motion	0·69
I sometimes see blood in my bowel motion	0·57
I . . . suffer from piles (or haemorrhoids)	0·41

These items appear to refer to actual mechanical difficulty in passing faeces through the anus, rather than to constipation, which has a saturation of 0·30 with the factor. The item referring to possession of haemorrhoids does not have as high a saturation with the factor as the other two items, yet it is probable that the two symptoms, of pain on defaecation and the passing of blood with the faeces arise most commonly from this surgical condition. The statement by a patient that he suffers from haemorrhoids or piles implies that he is aware of the diagnosis, but in fact many of those who suffer from this very common condition are unaware of the diagnostic label which could be attached to their symptoms. It is therefore reasonable to expect that the two main symptoms, pain and blood, would have a higher saturation with the factor than the diagnosis itself.

Factor scores were calculated for this factor, and the difference between the two equal groups of men and women, in respect of these factor scores, is not statistically significant. However, the psychological picture associated with the factor is, as will be seen later, markedly different in the two sexes.

Following the procedure adopted for factor A (functional dyspepsia), correlations were calculated between factor B (defaecatory difficulty) and the remaining 865 items of the inventory, for the men and women separately. Those significant at three different levels of statistical significance are listed in detail. The coefficient $r_{p.bis.}$ is the point-biserial correlation coefficient, while r_c is a 'corrected' coefficient, previously described (1954*a*).

It will be seen that items of the inventory which refer to purely psychological phenomena, are significantly associated with the pattern of gastro-intestinal symptoms represented by factor B.

A. Men

Tables 1–3 list the items of the inventory significantly associated with *Defaecatory Difficulty* at the three levels of confidence.

These items tend to be answered as 'true' by those who possess a high amount of the factor of *Defaecatory Difficulty*, and as 'false' by those who have it only to a small degree, or not at all. Where the correlation is preceded by a negative sign, this relationship is reversed.

If this personality pattern is compared with that found to be associated with factor A (Functional Dyspepsia) for the men (1954*a*),

* Research Psychologist, Tavistock Clinic.
† Psychologist, Tavistock Clinic.

Table 1. *Items significantly associated with factor B at the first level of confidence* (0·1 %)

Item		$r_{p.bis.}$	r_c.
1	I enjoy 'window shopping'	0·45	0·70
2	I usually feel embarrassed when seen entering or leaving a lavatory	0·52	0·64
3	I would have difficulty in passing my water when people are nearby	0·45	0·63
4	I worry about picking up germs or dirt from door-handles	0·51	0·63
5	I feel that sex is ugly	0·48	0·60
6	I have the feeling that I do not suffer enough	0·46	0·59
7	I feel I am a bad person	0·46	0·57
8	I feel ashamed of my sexual organs	0·45	0·56

Table 2. *Items significantly associated with factor B at the second level of confidence* (1 %)

Item		$r_{p.bis.}$	r_c.
9	I enjoy daydreaming	0·38	0·74
10	I am troubled by bad and dirty thoughts	0·44	0·65
11	Masturbation is a problem to me	0·44	0·65
12	I am easily persuaded to do things I do not really want to do	0·38	0·57
13	I think I can stand as much pain as other people	−0·38	−0·57
14	People would despise me if they really knew me	0·37	0·55
15	I sometimes give someone a present only to regret it later	0·44	0·55
16	I would like to be a great singer or orator	0·36	0·54
17	I like to give encouragement to someone who is not getting on very well	−0·42	−0·54
18	I feel embarrassed when I see people displaying affection in public	0·36	0·53
19	I get rather embarrassed when I have to be examined by a doctor	0·38	0·51
20	I sometimes wish I could walk around quite invisible to others	0·37	0·51
21	I always object if I feel I am being wronged in any way	−0·37	−0 51
22	I sometimes feel I want to be dominated	0·37	0·50
23	I sometimes think that I give off a bad smell	0·39	0·50
24	I am afraid of complicated machinery	0·38	0·49
25	I am frightened of mice or spiders	0·37	0·47
26	I sometimes get bad words in my mind and find it difficult to get rid of them	0·36	0·45
27	I tend to suffer from 'black outs'.	0·36	0·45

Table 3. *Items significantly associated with factor B at the third level of confidence* (5 %)

Item		$r_{b.bis.}$	r_c.
28	When I pass a mirror I usually look at myself in it	0·32	0·68
29	I spend very little time worrying about matters of love and sex	−0·31	−0·67
30	I feel depressed to-day	−0·30	−0·65
31	I am slow in deciding on a course of action	0·28	0·60
32	I spend a lot of time daydreaming about the future	0·34	0·59
33	I feel uncomfortable about having my photograph taken	−0·29	−0·59
34	I have, on the whole, more influence on others than they have on me	−0·29	−0·56
35	I sometimes wonder what people look like without their clothes on	0·33	0·55
36	I am irritated by people biting their nails or cleaning their fingernails in public	0·33	0·55
37	I tend to let myself go when I am angry	0·34	0·54
38	I am afraid of responsibility	0·32	0·53
39	I usually demand high standards in other people	0·28	0·53

Table 3 (*continued*)

Item		$r_{p.bis}$	r_c.
40	I have developed a good deal of self-control	−0·35	−0·53
41	I have difficulty in controlling my sexual impulses	0·31	0·52
42	I often feel ashamed of myself	0·29	0·52
43	I am seldom tempted to do anything wrong	−0·28	−0·51
44	I generally look at my bowel motion	0·32	0·50
45	It takes a great deal to make me angry	−0·31	−0·50
46	There are some articles of clothing which excite me sexually	0·32	0·48
47	I generally feel embarrassed if I have to tip someone, e.g. a waiter or hairdresser	0·31	0·48
48	I sometimes have the desire to peep at other people undressing	0·32	0·48
49	Sometimes I allow myself to let go and just make a mess of things	0·32	0·48
50	I tend to chew up the ends of things such as pens, pencils, knitting needles, etc.	0·32	0·47
51	I find I have sometimes to memorize numbers or count things that are not important	0·29	0·47
52	I usually think of my own death when someone I know dies	0·34	0·46
53	I sometimes worry in case someone I am fond of will die	0·29	0·46
54	I dislike it when strangers try to strike up a conversation with me	0·30	0·46
55	I dream a great deal	0·32	0·46
56	I sometimes try to think of new and unusual ways of getting sexual pleasure	0·34	0·46
57	I sympathize with others more often than I blame them	−0·35	−0·46
58	I sometimes get the sudden fear that my clothes are not properly done up	0·35	0·45
59	I am said to talk in my sleep	0·34	0·45
60	I like to eat a lot of sweet things	0·34	0·45
61	I would feel uncomfortable if I were to be seen naked by a person of my own sex	0·32	0·45
62	I have some habits I feel are dirty	0·35	0·45
63	I sometimes worry in case something may happen to some part of my body	0·30	0·44
64	If something I like becomes soiled or damaged it is completely 'spoiled' for me	0·29	0·44
65	I never have fits or convulsions	−0·35	−0·44
66	I am nervous when I am left alone	0·33	0·43
67	I tend to be rather fickle in my affections	0·29	0·43
68	I generally don't get on well with people	0·34	0·43
69	I am particularly upset by unpleasant smells	0·29	0·41
70	Talking to people about my personal feelings makes me acutely uncomfortable	0·28	0·41
71	I like adventure stories	−0·29	−0·41
72	I often injure myself accidentally	0·32	0·40
73	I think I am a dull and uninteresting person	0·29	0·40
74	I feel I am often cheated	0·32	0·40
75	I sometimes find myself compelled to walk or step over cracks in the pavement in a special way	0·29	0·40
76	Even though I feel superior to a person I always make a point of being modest in my behaviour	−0·29	−0·40
77	I sometimes have the impulse to jump in front of a moving vehicle	0·31	0·39
78	I am in love with someone whom 'I worship from afar'	0·31	0·39
79	I am very nervous of knives	0·30	0·39

Table 3 (*continued*)

Item		$r_{p.bis.}$	r_c.
80	I frequently pick my nose	0·28	0·39
81	I dislike taking a bath	0·32	0·39
82	I wish I were the sort of person whose picture was often in the newspapers	0·31	0·39
83	I sometimes have an impulse to hurt myself	0·29	0·37
84	I enjoy talking to people	−0·28	−0·37
85	I feel that I am constantly being discriminated against	0·28	0·35

it will be seen that the two are quite distinct. The 'somatic' items associated with factor A tend to be absent, and the large number of specific anxieties correlated with dyspepsia cannot be found.

It is interesting that the physical symptoms represented by the factor, and which refer to sensations arising from the anus, are so closely associated with character traits and attitudes which have long been regarded as having a strong connexion with the 'anal' phase of development.

The most striking feature of the items listed is the large number which refer to feelings of *shame*. According to psychoanalytical theory, shame and disgust are reaction formations which have their origin in parental disapproval of forbidden and 'dirty' instinctual wishes, and it seems clear that the shame of these patients derives from feelings of guilt about being seen to be 'dirty'. Items 2, 3, 7, 8, 10, 11, 14, 19, 20, 23, 26, 42, 61, 62, 70, 80 and 81 suggest this very strongly.

It has been pointed out by Freud that 'in the perversions which are directed towards looking and being looked at, we come across a very remarkable characteristic...in these perversions the sexual aim occurs in two forms, an active and a passive one. The force which opposes scopophilia, but which may be overridden by it...is *shame*' (1905). Evidence of the active wish to look may be found in item 1 (window-shopping) and such items as 35 and 48 (the wish to look at others undressed).

The relation to objects so characteristic of certain phases of the anal stage of development, can be seen in some of the items associated with the factor. Thus item 15 'I sometimes give someone a present, only to regret it later', is almost a text-book example of a character trait thought to be derived from early anal-retentive impulses.

Certain items deal directly with sexual interests, and it would appear that these interests show the influence of pre-genital fixations. These people are ashamed of their sexual organs (item 8), they are troubled by masturbation (item 11), they feel that they have difficulty in controlling their sexual impulses (item 41), and are excited sexually by certain articles of clothing (item 46). In addition they are preoccupied with matters of love and sex (item 29), and try to think of new and unusual ways of getting sexual pleasure (item 56).

As in the two previous studies (1954*a*, *b*), it is not proposed to enter into theoretical speculations as to the role that psychological factors might play in the *genesis* of the somatic symptoms constituting 'defaecatory difficulty'. There are many obstacles in the way of such a theory, not the least of which is the hereditary factor which is thought to contribute to the development of haemorrhoids in patients who have no other organic pathology. Nevertheless, there are definite psychological attributes correlated with these physical symptoms in the male group, and it is most suggestive that both the erotic pleasure in stimulation of the anal orifice, and heightened scopophilic-exhibitionistic interests, occur simultaneously as normal phenomena in the development of the child, about the second year of life. Practically every item listed bears the stamp of this phase of the infant's development.

Table 4. *Items significantly associated with factor B at the first level of confidence* (0·1 %)

Item		$r_{p.bis.}$	r_c.
1	I find I easily get impatient with people	−0·57	−0·72
2	I use laxatives quite frequently	0·56	0·64
3	I sometimes get a feeling of impending death	0·48	0·62
4	I am easily irritated by people	−0·47	−0·53

Table 5. *Items significantly associated with factor B at the second level of confidence* (1 %)

Item		$r_{p.bis.}$	r_c.
5	It is harder for me to be cheerful than it is for most people	−0·37	−0·64
6	I tend to make biting or sarcastic remarks when criticizing other people	−0·36	−0·59
7	I tend to doubt what other people tell me until I can see for myself	−0·37	−0·57
8	I believe everybody tells lies at some time	−0·44	−0·57
9	I find that a well-ordered mode of life with regular hours and an established routine suits me very well	−0·39	−0·56
10	I tend to lose my temper when criticized	−0·36	−0·56
11	I often have the fear of passing wind or making involuntary body noises when other people can hear	0·37	0·54
12	I never worry about the future	0·37	0·45

Table 6. *Items significantly associated with factor B at the third level of confidence* (5 %)

Item		$r_{p.bis.}$	r_c.
13	I sometimes wish I could walk around quite invisible to others	−0·31	−0·66
14	I usually treat a domineering person as rudely as he treats me	−0·32	−0·64
15	I greatly admire strong and powerful men	−0·30	−0·64
16	I can be optimistic even when others around me are depressed	0·35	0·62
17	I worry about growing old	−0·34	−0·60
18	I am generally physically fit and in good bodily health	0·28	0·59
19	I often have to check up to see whether I have closed a door or switched off a light	0·30	0·58
20	I feel an urgent wish to go to the lavatory when anxious or excited	0·35	0·55
21	I generally prefer to be with people who are superior to me in some way	−0·31	−0·55
22	I generally feel embarrassed when I am told a dirty story	0·30	0·50
23	I feel a strong dislike for inquisitive people	−0·32	−0·48
24	My feelings seem to be more intense than those of most people	−0·29	−0·46
25	I must admit that I am inclined to be dominant and to have my own way	−0·33	−0·46
26	Thoughts or ideas keep me awake at night	−0·31	−0·45
27	I usually feel upset when I lose an argument	−0·28	−0·44
28	I have intense likes and dislikes	−0·29	−0·43
29	I am thrifty and careful about money	0·29	0·42
30	I tend to be rather an impatient person	−0·33	−0·41
31	I am inclined to feel that everything that goes wrong is my own fault	−0·28	−0·41
32	I spend most of my time worrying about small details	−0·28	−0·41
33	I tend to delay paying bills even if I have the money with which to pay them	0·31	0·40
34	I find some smells particularly attractive	−0·31	−0·39
35	I feel embarrassed when I see people displaying affection in public	0·28	0·38
36	I am usually right in my predictions about the future	0·29	0·37
37	I generally prefer the boyish type of woman to the very feminine one	0·31	0·36
38	I am worried about the condition of my bowels	0·31	0·35
39	I feel uneasy about what lies in store for me in the future	−0·29	−0·35
40	My feelings are easily hurt	−0·28	−0·34

B. Women

Tables 4–6 list the items significantly associated with the factor of defaecatory difficulty, for the population of fifty women.

Most of the items listed have negative correlations with the factor, and in these cases an answer of 'false' is associated with the pattern of complaints which has been called *Defaecatory Difficulty*.

The personality picture gained from these items is a surprising one, and is quite different from that shown by the men. These women say that they do not easily get impatient (item 1), they are not easily irritated by people (item 4), it is not hard for them to be cheerful (item 5), they are not sarcastic (item 6), they do not doubt what others tell them (item 7), they do not believe that everybody tells lies at some time (item 8), they do not lose their temper when criticized (item 10), and never worry about the future (item 12). In addition, nearly all of the remaining items listed refer to the denial of traits which are generally regarded as being 'bad' or socially undesirable.

There seems little doubt that the picture is a highly idealized one, but it is not clear whether in fact the virtuous picture presented here is due to an unconscious idealization, or to a conscious attempt to make the best possible impression in the test-situation. They do not admit to the tension between ego and super-ego so characteristic of the obsessional, but seem rather to identify themselves with their ego-ideal.

It is difficult to understand this apparently strange association between such a personality picture and the somatic anal symptoms which give rise to 'defaecatory difficulty'. Any theory, if it is to be adequate, must explain both this observed correlation and the differences in the personality patterns between the men and women.

Acknowledgement

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THE RELATIONSHIP OF MASCULINE AND FEMININE PHYSICAL TRAITS TO ACADEMIC AND ATHLETIC PERFORMANCE

By R. W. PARNELL*

Draper, Dupertuis & Caughey (1944), writing of human constitution in clinical medicine, referred to the qualities long recognized by biologists of femaleness within the male and maleness within the female. They were concerned not with the primary sex differences of testis or ovary and accompanying genitalia, but with secondary sexual characteristics in for example the breasts, patterns of hair distribution, contours of muscle and fat and emotional responses.† This composite structure of masculine and feminine features Draper and his colleagues called the 'mosaic of androgyny', and they showed that in relating disease to constitution androgynic differences could outweigh so-called primary sex differences. If this is so in disease it is reasonable to ask what is the effect in health? The question as to who is most fit physically has been answered by Seltzer & Brouha (1943) who concluded that the higher the physical fitness of a group, the less frequent are the body types weak in masculinity. Furthermore, a superior degree of physical fitness can be achieved only by subjects who have a strong masculine component. In the notes which follow, the strength of masculinity will first be examined in a group of male athletes and contrasted with a group of non-athletes. Then, using the same scale of ratings, the question will be examined as to which men did better academically, those with strong or weak masculinity. But first a description is necessary of the method of rating the standardized photographs, which were taken originally with the subject in the three poses, front, side and back view, recommended by Tanner (1951) for Sheldonian somatotyping.

The anatomical traits which give rise to the impression of womanliness in a male physique were analysed by Draper (1941). The criteria given by Seltzer & Brouha (1943) were as follows:

Strong masculine component: general angularity and ruggedness of the body outline, sharply outlined musculature, an interspace between the thighs when the heels are together, greater inner than outer curvature of the calf muscles, narrower hip breadth relative to shoulder breadth, absence of feminine abdominal protuberance, restricted distribution of pubic hair running upwards towards the navel and flatness in the mammary area.

Weak masculine component: roundness and softness of the body outline, absence of sharply defined muscles, more extensive approximation of the thighs when the heels are together, greater outer curvature of the calf muscles, markedly greater hip breadth relative to shoulder breadth, feminine abdominal protuberance, lateral distribution of pubic hair along the inguinal folds and fullness of the breasts.

As various authors point out such feature lists are incomplete, and one might mention masculinity and femininity of facial appearance and the degree of general hirsutism. A further point arising from the relation of these criteria to somatotyping is that masculinity involves greater development of bone and muscle, femininity much more deposition of fat, and

* Nuffield Research Physician in the Constitutional Aspects of Psychiatric Medicine, The Warneford Hospital, Oxford. Lately, Student Health Physician, Institute of Social Medicine, Oxford.

† 'Primary' and 'secondary' refer to the purpose of reproduction only. To the extent that both sets of characteristics are genetically determined, neither set can be accorded priority over the other when the ovum is fertilized and the constitution founded.

Sheldon *et al.* (1940) in a discussion of gynandromorphy emphasizes how misleading it is to attempt interpretation of these features without regard to somatotype. Gynandromorphy they view as a secondary component in relation to the three primary components of constitution, endomorphy which describes in the main the capacity to store fat, mesomorphy which concerns the degree of bone and muscle development, and ectomorphy the degree of slimness or linearity of build. Some somatotypes contain more feminine features than others, for example mesomorphs are masculine compared with mesopenes, but it is the degree of femininity in relation to that expected for a given somatotype which Sheldon deems of greater significance. This refinement becomes possible once a sufficiently large reference file of known somatotypes has been gathered. It is not possible with the present material, but it is possible to tabulate masculinity scores by somatotype dominance and this was accordingly done.

Traits selected

The following ten traits were selected for study. Each was rated visually from the photograph on a five-point scale.

Trait 1. Facial appearance. 1, extreme masculinity; 2, moderate masculinity; 3, average; 4, feminine signs, e.g. little hair, small mouth, delicate nose; 5, marked femininity.

Trait 2. The slope of shoulders and appearance of arms, including the carrying angle at the elbow (front or back view), and hyperextensibility of the elbow (side view). 1, Extreme masculinity; 2, moderate masculinity; 3, average; 4, moderate femininity; 5, very feminine.

Trait 3. The relation of shoulder to hip breadth. In this particular series the biacromial and bi-iliac measurements had been taken, and although the relationship might have been expressed on a five-point scale of photoscopic impressions, the androgyny scale suggested by Tanner (1951) was actually employed. This is based on the formula $3 \times$ Biacromial $-$ Bi-iliac in centimetres, which makes optimal use of these measurements as a sex discriminant. Ratings were: 1, the mean $+2\frac{1}{2}$ S.D. or more; 2, the mean $+1$–2 S.D.; 3, mean $\pm\frac{1}{2}$ S.D.; 4, mean minus 1–2 S.D.; 5, mean minus $2\frac{1}{2}$ S.D. or more.

Trait 4. General hirsutism. 1, Marked hairiness on legs, arms, abdomen, and thorax; 2, moderately marked on legs, arms and lower trunk, usually omitting thorax; 3, moderate degree—in three regions; 4, less than average hair visible in the photograph on legs, pubic region and forearms; 5, minimal hair on legs and in pubic region.

Trait 5. The waist. 1, Waist absent or nearly so—muscles prominent; 2, slight waist; 3, average waist; 4, more than average waist with feminine appearance, 5, very marked.

Trait 6. Abdominal protuberance and pubic hair distribution. 1, Extreme masculine appearance; 2, moderate masculinity; 3, averagely flat lower abdominal wall with pubic hair extending vertically and laterally to an equal extent; 4, moderate feminine protuberance, with more lateral than vertical distribution of hair; 5, marked feminine appearance.

Trait 7. Outer curve of hips (front or back view). 1, Outer curve almost or completely absent; 2, slight outer curve; 3, moderate degree; 4, marked degree; 5, very marked degree. *Note:* the curve referred to is that over the upper one-third of the lateral aspect of the thigh, and should not be confused with the outer curve over the middle one-third of the thigh which is due to quadriceps muscle development. Ratings of this tend to run counter to ratings over the upper third.

Trait 8. The interspace between the thigh. A 6 cm. block had been placed between the subjects' heels. 1, extremely wide interspace; 2, wide space; 3, average; 4, close or partly touching; 5, inner aspects of thigh in contact throughout their length.

Trait 9. Calves. 1, Extremely masculine; 2, moderately so; 3, average; 4, feminine appearance; 5, very feminine appearance.

Trait 10. Degree of roundness of physique in general in contrast to muscular angularity. 1, Extreme muscularity; 2, more muscle and bone development than fat; 3, average balance

between muscle and fat; 4, rather more fat than muscle. 5, fat prominent, especially in the mammary region. It will be noticed that this last trait is closely related to the balance of endomorphy and mesomorphy in Sheldonian somatotyping.

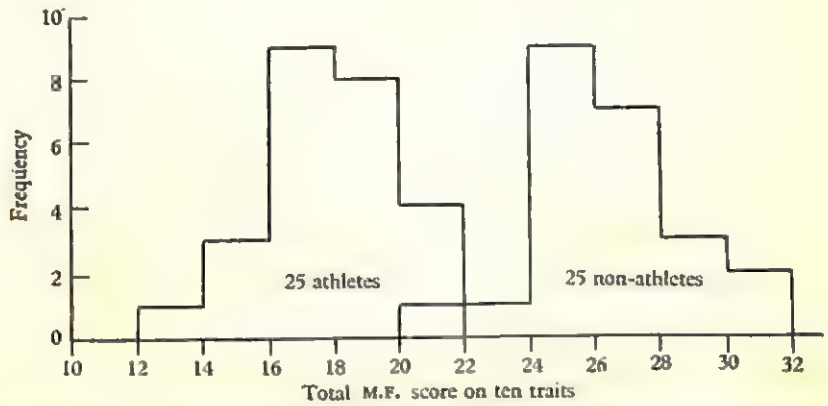

Fig. 1. Frequency distribution of athletes and non-athletes on ten-trait scale of masculine and feminine features.

Table 1. *The total of ratings on ten traits in athletes and non-athletes*

Trait no. ...	1	2	3	4	5	6	7	8	9	10
25 non-athletes	53	60	83	68	61	55	74	79	62	68
25 athletes	47	31	69	59	33	42	33	52	36	34
Total differences	6	29	14	9	28	13	41	27	26	34

Scale of ratings

Since each trait was rated on a five-point scale and there are ten traits, the minimum total is ten at the masculine end of the scale, the maximum fifty at the feminine end. The mean total 'masculine-feminine' (M.F.) score for the ten traits among the 295 men whose final examination results at Oxford were known was 26·06, with standard deviation 4·20. The distribution is skewed slightly as might be expected to the masculine end of the scale. The lowest total found was 12, the highest value 39.

Comparison of athletes and non-athletes

The distribution of total M.F. scores for athletes and non-athletes is illustrated in Fig. 1. The twenty-five young men who at routine health examination had given a history of no inclination and no active part in field games comprise the non-athletic group, the athletic group were twenty-five distinguished by prominent achievement at field sports. It will be seen that no outstanding athlete had a more feminine score than 21 and that this score lies on the masculine side of all but one of the non-athletes. Masculinity is important for good athletic achievement.

The next step is to analyse which of the ten traits discriminated most effectively between the two groups. This is shown in Table 1 in which the total for each of the ten traits can be compared in the two groups and where the difference in totals shows the non-athletes to have a higher and more feminine score in each of the ten traits. Athletes have a score rated on the average one unit more on the masculine side in traits 2, 5, 7, 8, 9 and 10, and it will be observed that muscularity contributes prominently to each of these ratings. The traits which discriminated least well are facial appearance, general hirsutism, the distribution of pubic hair, and lastly the relation of shoulder to hip width measuremets. These four traits

Table 2. *Average* M.F. *scores for separate traits according to final honours class*

Trait	Class I	Class II	Class III	Difference I–II	Difference II–III	Difference I–III
1	2·383	2·195	2·100	+0·138	+0·095	+0·233
2	2·166	2·110	2·195	+0·056	−0·085	−0·029
3	3·018	3·205	2·765	−0·187	+0·440	+0·253
4	3·000	2·787	2·738	+0·213	+0·049	+0·262
5	2·222	2·336	2·432	−0·114	−0·096	−0·210
6	2·875	2·462	2·390	+0·413	+0·072	+0·485
7	3·000	2·964	2·948	+0·036	+0·016	+0·052
8	2·720	2·844	2·835	−0·124	+0·009	−0·115
9	2·573	2·478	2·542	+0·095	−0·064	+0·031
10	2·830	2·635	2·720	+0·195	−0·085	+0·110
All ten traits	26·737	26·016	25·665	+0·721	+0·351	+1·072

Table 3. *Average sum of traits nos. 1, 3, 4, 6 and 10 according to final honours class and somatotype dominance*

Somatotype dominance	Honours class I	Honours class II	Honours class III	Difference I–II	Difference II–III	Difference I–III
Endomorphs	15·33	14·44	13·61	0·89	0·83	1·72
Mesomorphs						
Endomorphic	13·93	13·02	12·33	0·91	0·69	1·60
Ectomorphic	13·00	12·46	12·78	0·54	−0·32	0·22
Ectomorphs						
Mesomorphic	13·30	13·02	12·50	0·28	0·52	0·80
Endomorphic	14·13	13·92	12·54	0·21	1·38	1·59
All somatotypes	14·06	13·28	12·71	0·78	0·57	1·35
n	54	169	72	—	—	—
Standard deviation	2·31	2·69	2·44	—	—	—
S.E. diff.	—	—	—	0·376	0·354	0·426
Diff. ÷ S.E. diff.	—	—	—	2·07	1·61	3·17

make their full appearance at puberty, whereas the other six having muscularity as their common denominator may usually be detected by the age of seven and in many cases even earlier. It is, however, the 'pubertal' traits (nos. 1, 3, 4 and 6) which will now be shown to discriminate best academically.

M.F. scores and final honours class

The average M.F. scores for men obtaining first, second and third class honours are given in Table 2 for each trait separately and for the total of all ten traits. The traits discriminating best between honours class are traits 1, 3, 4 and 6. Trait 5 is slightly better than trait 10, but it discriminates in an unexpected direction and was dropped therefore in favour of trait 10, in making a shortened scale of five 'academic' traits. The subtotal of traits 1, 3, 4, 6 and 10 in Table 3 shows a trend of increasing femininity associated with academic distinction. The differences between first and second, and between

first and third class results reach the 5 % level of statistical significance; that between the second and third class falls short.

In Table 3 this shortened scale of five traits is examined by somatotype dominance as well as by honours class. There is a range of scores from 12·33 at the masculine end in endomorphic-mesomorphs obtaining thirds, to 15·33 among more feminine endomorphs gaining firsts. With only one exception, namely, the difference between second- and third-class ectomorphic-mesomorphs, the trend in all forms of somatotype dominance is towards greater femininity of male physique in association with higher academic achievement. It is least noticeable, however, where endomorphy is weakest, and one may conclude that although the overall trend is significant, it is not large and the discriminating power of these five traits is small, too small in fact to be useful for predicting academic performance.

Although a significant association between feminine component and academic success has been demonstrated it should be borne in mind that the M.F. scale distinguishes less well between levels of academic ability than it does between level of athletic performance. Full understanding and proper interpretation of the findings require consideration of many other factors affecting academic performance; among these are differences in time devoted to study, differences in educational background and other factors more obviously environmental in their influence than the traits of the M.F. scale, among which perhaps the majority are inborn.

Conclusions

1. The importance attached by earlier investigators to the presence of strong masculine traits in the physique of athletes is confirmed.

2. Academic distinction as judged by final honours class at Oxford is associated with a significant trend towards greater femininity. This trend is witnessed in each form of somatotype dominance.

3. Caution is needed for the proper interpretation of these findings. Full understanding depends on appreciation of their relationship to other factors governing academic performance.

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COMMENT ON PROFESSOR PORTEUS'S PAPER: 'MAZE TEST QUALITATIVE ASPECTS'

By G. A. FOULDS

I would like to comment on Prof. Porteus's critique, in the *British Journal of Medical Psychology*, **27**, nos. 1 and 2, of my investigations with what he calls 'a very special modification of the use of the Maze'.

I agree that I appear to have misunderstood the category W.D. (wrong directions). I was under the impression that Porteus scored both the self-corrected intention to proceed into a blind alley together with the actual entry. I discarded the former since it seemed to involve thought-reading. However, I gladly withdraw any criticisms which are dependent on this misunderstanding.

Porteus's main criticism is of my objection that a summation of points of discrete categories of error would be 'psychologically meaningless'. The same objection of course can be raised, he states, against a Binet or Wechsler score, etc.

The Wechsler Full Scale I.Q. is based on the sum of correct solutions to problems all of which, according to the theory underlying the test, involve the use of so-called intelligence. Within the framework of the particular theory (however dubious it may appear to some) the procedure is justified. No such theory has been put forward to justify the summation of qualitative errors in the Maze test. The justification offered is empirical.

Let us suppose that delinquents have 6 bicycles, 14 oranges and 3 sopranos, whilst normals have 3, 7 and 1 respectively. Undoubtedly the delinquents have 12 more, but 12 what? Again, let us suppose that anxiety states have 4 bicycles, 10 oranges and 4 sopranos, whilst depressives have 8 bicycles, 8 oranges and 2 sopranos respectively. Delinquents have 23 X, anxiety states and depressives 18 X and normals 11 X. Is this information more useful than knowing that depressives have 8 bicycles, delinquents 6, anxiety states 4 and normals 3; that delinquents have 14 oranges, anxiety states 10, etc.? On Porteus's method we would be unable to differentiate between anxiety states and depressives; on mine we would know that anxiety states have fewer bicycles, but more oranges and sopranos than have depressives.

Again I agree with Porteus that 'no test in the psychologists' repertoire is worthy of too detailed analysis'; but the operative word is 'too'. Many Rorschach and Wechsler analyses are too detailed because they have not been validated; but, again assuming my results to be correct, my analyses have been validated. It is difficult, therefore, to see how they can be too detailed. Alternatively, if my analyses are invalid, they will not be made more valid by adding them together.

REVIEWS

The Unconscious Origin of Berkeley's Philosophy. By JOHN OULTON WISDOM. (Pp. xii+244, 1 illustration. 25*s*.) London: Hogarth Press and Institute of Psycho-Analysis. 1953.

This book is concerned, as the author states in the Preface, both to interest psychoanalysts in philosophy—which he describes as 'perhaps the strangest of all the creations of the human mind'—and to interest philosophers in psychoanalysis. Whether he will succeed in the second aim so well as in the first is perhaps open to doubt; for it may well be that the philosopher will content himself with the conclusion that the strangest of all the creations of the human mind is psychoanalysis. There can be no doubt, however, about the interest which the philosopher will take in the scholarly exposition of Bishop Berkeley's philosophy to which Part I of the book is devoted. To provide such an exposition is undoubtedly one of the author's purposes. However, his main purpose is to provide the psychoanalytical interpretation of Berkeley's philosophical conceptions which appears in Part III; and, in aid of this purpose, Part II is devoted to a consideration of all such historical aspects of Berkeley's life as are considered relevant. Fortunately, the details of Berkeley's adult life are well documented; but, apart from such meagre details as might be of interest to a registrar, all that is known about his early life appears to be contained in a single statement of his own, viz. 'that I was distrustful at 8 years old'. This absence of knowledge regarding Berkeley's early life has an unfortunately compromising effect upon the value of Wisdom's psychoanalytical study; for his attempted reconstruction of the emotional sources of Berkeley's philosophy in early life is thereby rendered purely speculative—a fact which remains unaffected by his explicit denial (in the Introduction) that such is the case. The grounds of this disclaimer are that 'the interpretations, even though not phrased in a form suitable to use with a patient, are in general of a well-recognized clinical type'; but it would be a rash analyst who would interpret the details of a patient's early emotional life in the complete absence of any associative material regarding his childhood. Such interpretations would infallibly develop a resistance in the patient; and it would hardly be surprising in the present instance if a resistance should develop in the reader. In the light of these considerations it will be noticed that Wisdom's study of Berkeley the philosopher stands in marked contrast to Freud's study of the artist Leonardo da Vinci; for the value, no less than the interest, of the latter study depends upon the manner in which Freud attempts to throw light upon certain features of Leonardo's art in terms of known facts regarding the artist's childhood. By contrast, Wisdom's reconstruction of the conflicts of Berkeley's childhood, to the influence of which the particular form assumed by his subsequent philosophy is attributed, conveys the impression of an elaborate exercise in deductive reasoning from general psychoanalytical principles—among which, incidentally, the concepts of introjection and projection occupy a prominent place. It is only fair to add, however, that, in forming his conclusions, Wisdom takes extreme care to sift the details of Berkeley's later life for indications of his unconscious motivations.

Wisdom's description of Berkeley's philosophy takes full account of the most recent scholarship on the subject, and in particular the researches of A. A. Luce and T. E. Jessop. He accordingly draws a distinction between Berkeley's 'considered philosophy' and the solipsistic interpretation of his philosophy which has acquired historical importance through its influence upon Hume and other thinkers.* Berkeley's considered philosophy was based essentially upon an immaterialist theory of perception which he condensed into the classic formula '*Esse* is *percipi*'. This theory embodied a rejection of Locke's contention that ideas are representations or copies of something outside the mind; and it was combined with an attack upon the abstract idea of Matter accepted by Locke. Whilst rejecting Matter as the source of what is perceived, Berkeley recognized that the existence of what is perceived does not depend solely upon the perceptual activity of the human percipient; and he therefore concluded that what

* Hence the relevance of Sydney Smith's quip, 'Bishop Berkeley destroyed this world in one volume octavo; and nothing remained, after his time, but mind; which experienced a similar fate from the hand of Mr Hume in 1739'.

is perceived has an immaterial source in God. His considered philosophy thus represents a theocentric interpretation of the natural world. The solipsistic interpretation is, of course, based upon Berkeley's theory of perception considered in isolation, and is to the effect that, in terms of this theory, the external world depends wholly for its existence on the mind of the percipient. The scepticism implicit in such solipsism is, as Wisdom points out, completely alien to the spirit of Berkeley's considered philosophy, which began as Theocentric Phenomenalism and later assumed the form of Panentheism—'the doctrine that God is neither the world, nor separate from the world, but that the world is in him'. However, it is Wisdom's view that the solipsistic interpretation is not entirely arbitrary, but corresponds to a trend in Berkeley's own mind, which, although later submerged, was fairly explicit in his early *Philosophical Commentaries* (not intended for publication).

Wisdom is careful to avoid the error of regarding Berkeley's philosophy as a phenomenon isolated from the philosophical background of his age and so denying validity to 'explanations' conceived within the framework of the history of philosophy; but the framework within which his own 'explanation' is offered is strictly psychogenetic and psychoanalytical. Within this framework he accordingly suggests that a world governed by Berkeley's principle that '*esse* is *percipi*' is in no way distinguishable from a dream world; and he regards Berkeley's philosophy as representing essentially the embodiment of a phantasy. Berkeley's attack upon Matter, which later merged into an attack upon freethinkers, deists and mathematicians, is then interpreted as representing an attack upon a projected internal persecutor constituted (1) by faeces, and (2) at a deeper level, by milk from the bad breast. The '*esse* is *percipi*' principle thus resolves itself into an attempt to eliminate projected internal 'poison'. The accompanying substitution of God for Matter as the source of perceptions is then interpreted as an attempt on Berkeley's part to replace the dangerous poison by something good, and at the same time to alleviate his guilt over poisoning the outer world by the projection of his aggressive faeces.

The fact that, as Berkeley passed middle age, his enthusiasm for the immaterialist 'New Principle' as a key to the problems of life came to be subordinated to an almost fanatical belief in the medical virtues of tar-water is interpreted by Wisdom in the sense that the locus of the dreaded poison had shifted from the external to the internal world; and to this development he relates the chronic ill-health from which Berkeley began to suffer after the shipwreck of his cherished project to establish a college in Bermuda for the education of the New World. The shipwreck of this project, due largely to the political chicanery of Walpole (then Prime Minister) in refusing to implement a grant in aid of the scheme voted by the House of Commons, created in Berkeley a profound sense of disappointment, and, in Wisdom's opinion, had the effect of disillusioning him regarding the efficacy of the 'New Principle' as a means of denying the external existence of poisonous Matter (now incarnated in the perfidious figure of Walpole). The deterioration in Berkeley's health following this disillusionment is interpreted by Wisdom as a reaction of a predominantly psychosomatic nature. How far this interpretation is justified is difficult to determine on the available historical evidence, which is to the effect that Berkeley suffered from 'cholic', 'a bloody flux' and 'hypochondria'. That Berkeley became increasingly preoccupied with his health in later life there can be no reasonable doubt; and the term 'hypochondria' may be interpreted in this sense, although it would be a mistake to read into this descriptive term the technical meaning imparted to it by modern psychopathology. As regards the 'cholic' and the 'bloody flux', there is one passage (p. 139) in which Wisdom ventures the diagnosis that Berkeley suffered from 'disorder in the urinary system and the bowel'. From a medical standpoint, however, it seems unlikely that he suffered from simultaneous disorders of the urinary and intestinal systems; and the most probable hypothesis is that the complaint from which he suffered was either colitis or urinary calculus. The former alternative is certainly compatible with the psychosomatic hypothesis; but, if he suffered from urinary calculus (and there are strong indications in favour of this alternative), it would be rash to attach a categorically psychosomatic label to his complaint. Whatever views may be held regarding the part played by psychosomatic factors in inducing the metabolic changes to which the formation of urinary calculi are ultimately due (e.g. through the medium of phosphaturia), such psychosomatic influences are very

remote from the established condition, which once it has reached the stage of giving rise to renal colic, is inherently preoccupying. The fact remains, however, that Berkeley became progressively 'hypochondriac'; and the total syndrome of his ill-health is interpreted by Wisdom as predominantly psychosomatic—an interpretation which he makes the occasion for submitting a revised theory of psychosomatic disorder in general.

It is interesting to note that, whereas in a passage to which reference has already been made (p. 139) Wisdom diagnoses Berkeley's complaint as 'disorder in the urinary system and the bowel', in the chapter entitled 'A Theory of Psychosomatic Disorder' he reduces the diagnosis to 'a disorder of the intestinal tract' alone (p. 194); and one cannot help wondering how far this simplification of the issue is due to the influence of his theoretical view that 'faeces and food constitute the primary and typical bad objects of which others are only derivations' (p. 178). Be this as it may, the general form assumed by his theory of psychosomatic disorder may be gathered from the following concise statement (p. 206): 'A purely psychological disorder is one in which the imagination conducts basic conflicts in terms of projective' [viz. visual and auditory] 'images; a psychosomatic disorder is one in which the imagination conducts basic conflicts in terms of tactile or kinaesthetic sensations' [the term 'sensation' as used here being intended to include 'images' in the accepted sense]. Involved in this formulation is the dubious assumption that, whereas tactile and kinaesthetic images can give rise directly to physiological changes in the bodily organs, visual and auditory images cannot. It is also argued that projective images fulfil a defensive function in virtue of their capacity to represent dangerous objects as at a distance from the body, and that the experience of tactile and kinaesthetic images represents a failure of this defence in so far as it implies that such objects are in contact with or inside the body. This theory, although interesting, bears such a striking resemblance to Berkeley's celebrated theory of vision (to the effect that visual perceptions function essentially as signs of potential tactile experience) that one cannot help wondering how far the author has here come under the influence of the subject of his study.

By contrast, Wisdom's view that faeces and food constitute 'the primary and typical bad objects' implies an emphasis on Matter which is the complete antithesis of Berkeley's immaterialism; and indeed, according to Wisdom, the unconscious aim of Berkeley's immaterialism was precisely to deny the existence of these bad objects. However, there are many psychoanalysts who, without endorsing an immaterialist philosophy, regard the primary objects of the infant, both good and bad, as constituted by his mother and her breast; and there are some at least who attach primary importance to the personal relationship of the infant to his mother. Readers who adopt such ways of thinking will doubtless be impressed by the paucity of reference to Berkeley's relationship with his mother—and indeed by the comparatively inconspicuous part which personal object-relationships in general appear to play in the author's basic conceptions.

However intrigued the reader may be by the ingenuities of the author's psychoanalytical study of Berkeley and his philosophy, there are certain questions about which he will remain as ignorant when he lays the book down as when he took it up; for, if he is curious to know by the agency of what mental processes a man beset by bad objects, now introjected and now projected, became (1) a philosopher at all, and (2) one of the greatest figures in the history of philosophy, his curiosity will remain unsatisfied. It may also be a disappointment to him to find that he has learned nothing about that strange alchemy of the mind whereby an Irish clergyman's preoccupation with faeces should have led him to anticipate Keynes's economic theories and Mach's criticism of Newton's mathematics by roughly three hundred years. These are all questions to which the author does not claim to have provided an answer; and indeed he expressly disclaims any attempt to have done so. But, unless the present study is to be regarded simply as representing the analysis of another psychoneurotic, these are the interesting questions. Similar considerations apply, of course, to Freud's study of Leonardo da Vinci, which, however intriguing, throws no light (as indeed Freud himself was the first to point out) upon the questions (1) why Leonardo became an artist at all, (2) what made him one of the greatest of the great masters, and (3) what conferred upon his artistic creations that ineffable and individual quality by which they are distinguished. Psychoanalysis has thrown a flood of light upon psychopathology, no inconsiderable light upon the somewhat allied discipline of anthropology, some light upon the

less closely allied discipline of sociology, but almost no light upon that most characteristic group of human achievements so appropriately described as 'the Humanities'. Does this perchance mean that, in its present phase at any rate, psychoanalysis is better qualified to throw light upon the negative than upon the positive aspects of human nature? W. RONALD D. FAIRBAIRN

The Parietal Lobes. By MACDONALD CRITCHLEY. (Pp. vii+480. 70*s*.) London: Edward Arnold and Co. 1953.

As a young man, William McDougall expressed the firm conviction that the secrets of the mind are locked within the cells of the central nervous system. Unfortunately, he only too soon cast aside the Sherringtonian key, spending the rest of his life in the sterile pursuit of psychological evasions. Present-day psychologists, it is true, pay more regard to the central nervous system than did McDougall, and on the whole prefer to formulate their theories in the language of physiology. None the less, they have interested themselves surprisingly little in cerebral psychopathology, and it has been left largely to the neurologists to fashion the keys which the young McDougall sought. Whether they will in fact fit the locks is one of the foremost questions of our day.

Dr MacDonald Critchley's long awaited book will be a tonic to every psychologist still young enough in heart to respond to McDougall's early profession of faith. Here he will find a fascinating record of research on the parietal lobes, considered in the light of their anatomy, physiology and—above all—pathology. This book, moreoever, is no mere compilation of esoteric clinical data. It represents a first attempt to lay the foundations of a genuine physiological psychology—one, that is, that does proper justice to the realities of human development. Even if its author might not wish to call himself a psychologist, there is no doubt that he has written a book of greater value to psychology than has any neurologist since Henry Head.

Chapter I is concerned with anatomical considerations. Dr Critchley makes it clear that although 'the parietal lobes are empirical conceptions rather than autonomous entities', study of their evolution may throw important light on the functions which they are presumed to subserve. Hence the first part of the chapter is given over to comparative anatomy. This is followed by a very full account of the structure and connexions of the parietal lobe in man, detailed consideration being given to its subdivisions, cytoarchitechtonics, and relations to the thalamic nuclei. To a non-specialist, this account appears authoritative. There is even a reference to the parietal lobe in prehistoric man, from which the irreverent may learn that Piltdown man, in the opinion of the late Prof. Tilney, was capable of some sort of language.

Chapter II is entitled 'Experimental Physiology'. This is much briefer and perhaps less satisfactory. Although Dr Critchley prefaces it with a quotation from Ludwig—'En science la méthode est tout'—one may surmise that, in his private estimation, the methods of experimental neurophysiology add up to very little. It is true that the better known work on direct stimulation and evoked cortical potentials is adequately summarized, but surprisingly little attempt is made to relate the findings to clinical or theoretical issues. Moreover, very little attention is given to ablation studies, no mention being made of any work on bilateral posterior cerebral ablations in primates more recent than that of Peele (1944). In view of the very considerable body of recent work by Chow, Blum, Pribam, Harlow and others, this is a notable omission.

The remainder of the book is almost wholly concerned with parietal lobe syndromes in man and it is in these chapters that Dr Critchley comes fully into his own. Following a brief discussion of parietal symptomatology in general (in which methods of examination are fully described), the main parietal syndromes are fully documented in successive chapters. These comprise disorders of tactile sensation and motility (chapters IV and V), constructional apraxia and Gerstmann's syndrome (chapters VI and VII), disorders of the body-image (chapter VIII), visual defects and troubles of spatial perception (chapters IX and X), and disorders of language and symbolic thought (chapter XI). The presentation, in part historical, aims throughout at lucid description and acceptable classification of a confused and complex subject-matter. To those whose knowledge of parietal syndromes has been wrested with blood and tears from the voluminous continental literature, Dr Critchley's clarity of statement, elegance of style, and detachment from

doctrine will prove an unaccustomed and wholly refreshing joy.

In his account of the various manifestations of parietal lobe disease, Dr Critchley for the most part adopts the conventional neurological categories. Although this procedure is doubtless correct from the standpoint of nosology, the reader may wonder at times whether a more adventurous approach might not have permitted more adequate analysis of the various syndromes described. To give but one example, the treatment of spatial agnosia and constructional apraxia in separate chapters appears to imply a sharper distinction between agnosia and apraxia than is perhaps warranted by the clinical evidence. Again, it may be felt that Dr Critchley, in his attempted correlation of symptoms with lesions, pays too little attention to the nature of the lesion itself. As is well known, surgical removals of any lobe of the brain may be unattended by some, at least, of the symptoms consequent upon its disease. Further, not all the syndromes described in this book can properly be attributed to lesions of the parietal lobes. Visual object-agnosia, for instance, which is considered in great detail, is generally held to result from bilateral lesions of the occipital cortex. It might therefore have been more satisfactory had Dr Critchley taken functional rather than anatomical reference points in his presentation of the posterior cerebral syndromes.

As regards the broader problems of functional localization, Dr Critchley is rightly cautious in arguing from symptoms of disease to the localization of normal function. Whereas the clinical evidence undoubtedly favours the view that there is some measure of localization of aptitudes and skills in the parietal cortex, the fascination of the Gestalt view, as represented particularly by Goldstein, has undoubtedly been felt by the author. In so far as compromise in the matter is possible, Dr Critchley inclines to the position advocated by von Monakow, still unfortunately less well known than it might be to British neurologists.

The last three chapters are devoted to General Psychiatric Considerations (chapter XII), the Right versus the Left Parietal Lobe (chapter XIII) and a summing-up (chapter XIV). The first of these chapters will be of particular interest to psychiatrists, largely on account of the author's brilliant analysis of the concept of dementia and its relation to circumscribed intellectual deficits. His section on the differential diagnosis of parietal syndromes from hysteria should also be widely consulted. (The present reviewer can certainly not be alone in having studied cases of visual disorientation previously dubbed hysterical by consultants in psychological medicine.)

In his chapter on the laterality of parietal lesions, Dr Critchley shows himself to be sceptical of the view (widely held on the Continent but not well regarded in this country) that lesions of the right parietal lobe may give rise to symptoms not normally observed in cases with comparable lesions of the major hemisphere. Although the existence of syndromes peculiar to the minor hemisphere remains *sub judice*, it is worth bearing in mind that many neurologists of the last century refused to accept Broca's localization of the motor speech centre on the grounds that a difference in function between the two hemispheres was *prima facie* inconceivable. It remains to be seen whether the evidence regarding anosognosia, constructional defects and loss of spatial orientation, which Dr Critchley himself considers strongly to implicate the parietal lobe of the minor hemisphere, is or is not an adequate basis for postulating a difference in normal hemispheral function.

This book will be of great interest to the psychologist, not only on account of the new material which it contains, but also for the sidelights thrown on many old stories in clinical neurology. It is specially intriguing, for instance, to learn that the famous patient *Schn.*, studied with unsurpassed doctrinal thoroughness by Gelb and Goldstein some thirty years ago, has been twice re-examined in recent years and that on both occasions an iatrogenic element in the clinical picture was strongly suspected. In the acid words of Prof. R. Jung, had the patient originally been examined by a psychotherapist (instead of by a brain pathologist and a Gestalt psychologist), then there might have been both a different interpretation and a different outcome. At all events, it is reassuring to learn that this patient's supposed Gestalt blindness has not prevented his working as a railway clerk or assuming the mantle of *Bürgermeister* of his native town.

It is perhaps to be regretted that Dr Critchley does not endeavour to weld his material into a comprehensive pattern or attempt to sketch an overall picture of normal parietal lobe function. The difficulty in doing so, as he himself admits, depends in no small measure on the failure of psychologists to bear in mind the phenomena of

dissolution in their attempts to explain normal intellectual activity. As Freud discovered in another connexion, academic psychology is singularly ill-equipped to comprehend mental pathology and it is often necessary to erect entirely new theories of normal behaviour in order to do so. One may venture to suggest to the experimental psychologist that, unless he makes haste, he must not be surprised if the neurologist steals his thunder.

Although Dr Critchley makes frequent references to his personal cases, many will regret that he has not seen fit to communicate them at greater length. Had he followed Head's precedent, and devoted a supplementary volume to case reports, there can be no doubt that the scientific value of the book would have been enormously enhanced. As it is, the reader must rest content with tempting, if lamentably brief, excerpts from the author's unrivalled clinical experience. Perhaps Dr Critchley will be induced to publish some, at least, of his invaluable cases as a sequel to the present book?

Dr Critchley takes a justified pride in his bibliography, which is unusually complete and on the whole exceptionally accurate. Reference might have been made easier, however, either by presenting the entire bibliography in alphabetical order or by printing the chapter number at the head of every page. As it is, the reader must first refer to the table of contents (or memorize the order of the chapters) before he can track down an item in the bibliography. One may hope that this irritating feature will be corrected in subsequent editions.

It is strongly to be hoped that medical psychologists will devote considerable attention to this book. Not only has it an important bearing on the examination and diagnosis of neuropsychiatric cases, but it opens the way to a more integrated conception of psychiatric symptomatology in general. The problems of the body scheme, of derealization and depersonalization, of emotional lability and dementia, are common to both neurology and psychiatry and the sooner these manifestations are brought under a unified conceptual schema the better the prospects for psychological medicine. If Dr Critchley does not himself provide such a schema, at least he indicates the kind of lines along which it might be evolved. His advice to the psychologist is plainly not to reject neurology but to use it. The next step is up to us.

O. L. ZANGWILL

On Aphasia. A Critical Study. By SIGMUND FREUD. Trans. by E. Stengel. (Pp. xv+105. 12*s.* 6*d.*) London: Imago Publishing Co. Ltd. 1953.

The conspiracy of silence surrounding the neurological antecedents of psychoanalysis has at last been broken by the re-issue, in admirable translation by Dr Erwin Stengel, of Freud's early monograph on aphasia. Originally published in 1891, this monograph appears to have attracted very little attention at the time (according to Ernest Jones only 257 copies were sold) and is seldom even quoted in the standard texts. Yet, as Dr Stengel rightly points out in his sensitive Introduction, Freud was among the first to take issue with the 'diagram-makers' of his day, to cast doubt on the doctrine of 'speech centres', and to lay emphasis on the evolutionary approach to aphasia. This able critique of the current theories of localization, which anticipated in many respects those of Marie, Goldstein and Head, entitles Freud to an honourable, if minor, place in the long and chequered history of research into speech and its affections.

O. L. ZANGWILL

Progress in Clinical Psychology. Edited by DANIEL BROWER and LAWRENCE E. ABT. Vol. I. Sections 1 and 2. (Pp. 564. 80*s.* 6*d.*) New York: Grune and Stratton; London: George Allen and Unwin. 1952.

The editors plan to organize a volume of *Progress in Clinical Psychology* every second or third year. The present volume, in two separate sections, seeks 'to provide as complete a coverage as possible of the past six years in clinical psychology and to point up, in the process, as many stimuli as possible to further thinking and research.... Each writer was given the privilege of being as selective and constructively critical of his materials as he wished.' There are few psychologists who would not welcome the fulfilment of such an aim. So much material is now published that the busy clinician, able to read only a fraction of it, depends on the critical sifting by the more leisured. There are already in psychology too many summaries and not enough scholarly criticism.

The bibliographies contain some 2750 references, the vast majority of which are American. A rough check showed that approximately ninety periodicals or books were British. The *British Journal*

of Medical Psychology has nine references; the *Journal of Mental Science*, eight; the *Lancet* and *Human Relations*, seven each; *International Journal of Psycho-Analysis*, six; *British Journal of Psychology* (*Statistics Section*), *Occupational Psychology* and *British Journal of Psychology*, four each; nine other British journals share twelve references between them.

One has little difficulty in writing down a dozen important English books or researches which are not mentioned, e.g. the work of P. E. Vernon, O. L. Zangwill, Alec. Rodger.

The two volumes are divided into seven parts:

Part 1, Introduction. L. E. Abt's article, 'The Emergence of Clinical Psychology', notes some of those tendencies in Psychology which have led to the development of Clinical Psychology. It ends with a list of five important problems or issues and ten conceptual trends, e.g. 'Clinical Psychology is seeking to make its conceptions, assumptions and hypotheses more explicit and public and to present them in the form of testable propositions', and 'Clinical psychologists are beginning to establish a research basis for psycho-therapy'.

Part 2, Diagnostic and Evaluative Procedures, is concerned with Intellective Functions: (*a*) Children; (*b*) Adults; (*c*) Measures of Aptitude, Achievement and Interest; (*d*) Personal Documents; (*e*) Self-Appraisal Methods; (*f*) Testing for Psychological Deficit; (*g*) The Rorschach Thirty Years After; (*h*) Thematic Apperception Test and Other Apperceptive Methods; (*i*) House, Tree, Person and Human Figure Drawings; (*j*) Gestalt Functions: The Bender Gestalt, Mosaic and World Tests; (*k*) Sentence Completion and Word Association Tests; (*l*) The Rosenzweig Picture—Frustration Study; (*m*) The Szondi Test.

Noteworthy among these are (*f*) by H. F. Hunt, (*h*) by Leopold Bellak in which he proposes a Projective Research Registry for the purpose of accumulating apperceptive norms; (*g*) by Marguerite Hertz in which, though a protagonist of the test, she achieves scientific detachment. It is good to find in her summary: 'Basic theoretical issues are still unsolved. In the interpretation of records there is still too much servitude to subjectivity and insights. There is still a serious dearth of basic research. Studies are sporadic and uncoordinated. Statistical procedures have been grossly over-emphasized and have often been erroneous. Few studies have been replicated. Results of research thus far are tentative and suggestive but not definitive.' By contrast (*m*) by Susan Deri is more partisan. Approximately one-quarter of her references are unpublished. (*e*) by A. Ellis lists nearly 400 references but includes critical comment and appraisal. Though very brief one welcomes (*d*) Personal Documents.

Neither author nor editors supply the much needed perspective in this area by evaluating it in relation to psychology in general.

Part 3, Psychotherapy. (*a*) Client-Centered Counseling and Psychotherapy; (*b*) Psychoanalytic Theory and Technique; (*c*) Group Psychotherapy; (*d*) Play and Related Techniques; (*e*) Spontaneous Art in Therapy and Diagnosis; (*f*) Neurosis and Its Treatment as Learning Phenomena.

(*a*) by N. J. Raskin is a summary of the Rogerian viewpoint 'during the decade or so of its existence as an organized school of thought'. There is not a single reference to any criticism of this position. In (*b*) R. Ekstein, who holds among other positions that of Training Analyst, is both critical and tolerant. Developments in ego psychology, psychotherapy with schizophrenics, and psychotherapy with children, particularly the delinquent and the psychotic are, in his opinion, the most important trends. (*c*) and (*d*) are summaries without criticism of concepts or evaluations of research. (*c*) omits any reference to the Tavistock work. (*e*) is a brief summary by Mowrer of his own theory which should already be known to readers of such a volume as this.

Part 4. Developmental Processes. (*a*) Infancy; (*b*) Early Childhood; (*c*) Latency Period; (*d*) Adolescence; (*e*) Gerontology.

(*a*)–(*d*) organize selections from the literature under various headings and include some evaluation. (*e*) by Oscar Kaplan, though brief, is critical —'there are few studies of broad scope, even some of these leave much to be desired in thoroughness of design and execution.... Many investigations have been based either on tests or questionnaires of unknown validity or upon psychometric devices intended for children or young adults.... There is the beginning of an awareness of problems of sampling and interviewing, but few of the published studies reflect such an awareness'. Kaplan is of the opinion that 'The British have taken the lead in research on the 'social medicine of old age.' (*a*)–(*d*) with the exception of psychoanalytic references refer to only one other British article.

Part 5, Applications of Clinical Psychology in (*a*) Educational Psychology; (*b*) Vocational

Counseling; (*c*) Business and Industry; (*d*) Military and Other Governmental Programs; (*e*) Assessment; (*f*) Physical Handicaps; (*g*) Rehabilitation; (*h*) Mental Deficiency; (*i*) Crime and Delinquency; (*j*) Sexual Disorders; (*k*) Addiction.

One difference between British and American Psychology is the British unwillingness to stress the applied aspects in undergraduate training. Hence the viewpoint of Part 5 is perhaps more relevant to the American scene. Clinical psychologists will approve of this section, whose aim is to remedy the 'insufficient regard [in many applied fields] for the deeper components of personality.' The articles themselves are not all of high quality but all at least introduce the clinical aspect. Brower's chapter (*c*) is good; (*d*) is confined to American affairs and is too brief to be of much value. The reader is better advised to go to the plentiful material already published. One's eye is caught in this chapter by the reference to $3,000,000 research grants awarded by the National Institute of Mental Health of the U.S. Public Health Service for the period 1 July 1947–28 February 1951. (*e*) is non-critical; (*g*) is confined to two major problems, frigidity and impotence. It organizes 231 references under headings, and ends with the sentence 'the soundest conclusion that may be made is that we have much more to learn about sexual frigidity and impotence than we presently know'.

Part 6, Approaches to Clinical Psychology. (*a*) PsychoSurgery; (*b*) Cultural Anthropology; (*c*) Social Psychology; (*d*) Statistical Methods; (*e*) *P*-Technique Factorization.

(*a*) by H. G. Birch makes critical comments on the surgical attitude in this field—'a psychological evaluation...must proceed systematically and attempt to advance our estimate of the usefulness of the procedures used in terms of their psychological consequences....To the present writer the evidence indicates the need to halt the ever-widening use of a radical practice that has neither a clear theoretical justification nor a sound empirical base.' (*b*) is a brief non-critical summary; (*c*) by Else Frenkel-Brunswik is a valuable account concerned with concepts rather than isolated researches. (*d*) by L. S. Kogan is by no means exhaustive but a valuable selection from the field. The author ventures his own prediction, e.g. 'the scaling approach—but not necessarily linear scaling—will ultimately be found to meet these criteria, (validity, economy, psychological potential) more adequately than the approach by multiplex testing'. (*e*) is a reprint of an article by R. B. Cattell already published in the *Journal of Clinical Psychology*, January 1952.

Part 7. Professional Issues, concludes the volume with an article by V. C. Raimy on 'Clinical Psychology as a Profession'. Though written for an American audience there is much to interest the English reader, especially in reference to our current concern over the training of clinical psychologists. Raimy has some comments to make which one might recommend to those eager to rush into print—'...significant research cannot be performed ordinarily by someone who knows only research methodology and clinical techniques. Familiarity with the content of any given area of psychopathology does not come with the reading of one or two text-books and journal articles. For example, almost anyone can do research with schizophrenics as subjects, but by now it is only too apparent that the easy problems are pretty well exhausted. The counting of noses, the search for single etiological variables, the naïve hope for ready classification—all these and many other simple questions about schizophrenics have been asked and answered without anyone's being much the wiser. In a word, purely technical research at this time in psychopathology is unlikely to produce significant results or to be economical.'

To summarize: These volumes are recommended to the final honours undergraduate and the recent graduate. They provide a useful bibliography and an introduction to current concepts in this field. The senior psychologist who has on his shelves the *Annual Review of Psychology* and recent books on Projective Tests, Mental Abilities and Statistics may find library use sufficient for his more critical purposes.

J. C. KENNA

The Structure of Human Personality. By H. J. EYSENCK. (Pp. xix+348. 37*s*. 6*d*.) London: Methuen. 1953.

Uses and Abuses of Psychology. By H. J. EYSENCK. (Pp. 318. 2*s*. 6*d*.) London: Penguin Books.

Dr Eysenck is well known as one who insists upon the most rigid of scientific standards and the strictest experimental conditions in psychological investigations. In the minor of these two works he preaches this gospel to the general reader; in the major he endeavours to practise it. For the medical

psychologist a book with the title *The Structure of Human Personality* should be of interest and importance. On the other hand, he might expect less from such a book as *The Use of Factor Analysis in the Isolation and Measurement of Certain Traits demonstrated in the Responses of Human Subjects to Various Types of Psychological Examination*. That is what this book describes, and describes excellently and expertly, for Dr Eysenck is of course expert in this field. But, since Dr Eysenck's book has the title it does have, it is perhaps worth examining what he means by 'personality'.

'*Personality* is the more or less stable and enduring organization of a person's character, temperament, intellect and physique, which determines his unique adjustment to his environment. Character denotes a person's more or less stable and enduring system of conative behaviour ('will'); Temperament, his more or less stable and enduring system of affective behaviour ('emotion'); Intellect, his more or less stable and enduring system of cognitive behaviour ('intelligence'); Physique, his more or less stable and enduring system of bodily configuration and neuro-endocrine endowment.' (Eysenck (p. 2), following Roback, Allport and McKinnon.)

Other definitions are—'the integrated activity of all the reaction-tendencies of the daily life of the individual... the person as he is known to his friends. This is the simple clinical connotation of the word.' (Henderson and Gillespie, *Text-book of Psychiatry*.) 'The habitual patterns of behaviour of the individual in terms of physical and mental activities and attitudes, particularly as these have social connotations.' (Healey, Bronner and Bowers, 1930, quoted by Hinsie and Shatzky, *Psychiatric Dictionary*); or a working definition in medical psychology, 'The product of interaction in an individual between constitutional and environmental influences (especially early environmental influences).'

The difference between Eysenck and the medical psychologists is illustrated by his use of terms like 'organization', 'adjustment', 'system', 'configuration', and, for that matter, 'structure', and his easy dissection of *behaviour* into 'conative', 'affective', 'cognitive' in the style of the older academic psychology. Eysenck's attitude to personality is perhaps illustrated appositely by interest scores which he quotes, in another connexion, from Thurstone (p. 217). There 'Psychology... has a loading of 0·77 in science, of 0·47 in language, *of* −0·04 *in people*, and of −0·28 in business'. (Reviewer's italics.) However, once one treats of personality in terms of 'more or less stable and enduring organization' of 'more or less stable and enduring systems', taking what might be described as a static-abstract view of it, one can then proceed to measure it. (Indeed, there seems little else to do with it.) And, having measured it, one can combine the measurements into a 'structure' as an exercise in 'solid', though still abstract, geometry. One will then have something like an ideal personality in the Platonic sense; being mathematical, it will be more 'real' than reality; not true to life but truer than life. One is reminded of Gulliver's suit of clothes, when in Laputa the tailor 'first took my altitude by a quadrant, and then with a rule and compasses, described the dimensions and outlines of my whole body, all of which he entered upon paper, and in six days brought my clothes very ill made, and quite out of shape, by happening to mistake a figure in the calculation'.

It is not suggested that Dr Eysenck would mistake a figure in a calculation, for figures and calculations are Dr Eysenck's tools and he knows his tools and uses them skilfully. A good deal of his book, however, is devoted to the amendment of the conclusions of other workers who, it would seem, have been less skilful in devising scientific and objective techniques or in interpreting their results. Sometimes the statistical work is imperfect, but even when this is not the case it would appear that the science and objectivity introduced in the techniques of testing and of statistical analysis may leak out again in the interpretation. Eysenck quotes Thurstone—'this matter of naming the factors is entirely extraneous to the statistical analysis. The statistical work may be correct, while considerable argument might conceivably be made about the naming of the factors.... When multiple-factor analysis is undertaken there is absolutely no guarantee that the resulting factor loadings will so arrange themselves that they can be readily named.' This would not matter too much if the whole thing were an exercise in algebra, but when we are endeavouring to decide what attributes are to be ascribed to actual people, healthy or sick, it becomes a matter of some importance. The worst feature of all this is that one can analyse one's data and interpret one's results, and interpret them wrongly, without ever seeing the subject, the patient, the person, at all. Why it is more scientific to have a fallible skill in dealing with statistics than

to have a fallible skill in dealing with one's fellow-humans is not quite clear. One is supposed not to be swayed by subjective influences (though surely that is just the problem described by Thurstone), but among the subjective influences that are now prohibited are those of insight and sympathy and empathy.

It is, then, desirable not only to know the measurements one finds, but to have a fair idea of what one is measuring and whether it is a thing worth measuring. (A horse's height is measured from fore-hoof to shoulder, and the length of some animals from snout-tip to tail-tip; neither of these measurements is so very useful in humans.) Now, humans do vary in intelligence and that variation can be adequately measured and is useful information; and humans do seem to vary between introversion and extraversion, or similar opposite qualities, and that variation is useful to record also. These are two possible axes of variation of which Dr Eysenck treats well. His third axis, however, and one might say his favourite, is the more doubtful and more dubiously useful one of 'neuroticism'. This is a concept which Dr Eysenck defends with a zeal which he insists is scientifically and not emotionally motivated, and he shows very considerable ingenuity in demonstrating that other workers really agree with him even when at first sight they do not appear to do so. In due course he is so sure that he has succeeded in this demonstration that he is found referring confidently to 'truly significant psychological variables, such as neuroticism'. No doubt this variable is statistically significant, but we have seen above that there are possible difficulties in interpreting the significance (in the ordinary sense of the term) of statistical results. It is, for instance, difficult to tell, from the many definitions quoted by Dr Eysenck, whether 'neuroticism' is regarded as a potentiality or an actual characteristic. If the latter, it might as well be called 'neurosis' and would apparently indicate only that some people can be more ill than others psychologically as well as physically. If 'neuroticism' is a potentiality it would seem to measure the tendency to neurotic breakdown quantitatively, but without any qualitative information. Admittedly, if we accept Dr Eysenck's hysteria-extraversion and 'dysthymia'-introversion linkages, we have some kind of qualitative indication; that is, either the subject is liable to hysteria or he is liable to one or all of the other neurotic clinical syndromes. This would not seem immensely useful. Even if 'neuroticism' is a true dimension, it may be an analogue of the 'nose-tip to tail-tip' dimension, which in humans is true but neither interesting nor useful. 'Neuroticism' has also a disturbing resemblance to those old, easy, and dangerously misleading concepts of 'degeneracy' and 'neuropathy'—or to the 'weak constitution' which our hypochondriacal patients tell us was so confidently diagnosed by the old family doctor in their infancy. Would it really be worth recording that A's liver functioned better than B's hip joints, while C's coronary arteries were worse than either, if all references to particular disabilities were expunged and we were left only with ratings on a scale of, say, 'valetudinarianism'?

This book, then, while providing a most comprehensive survey of related work, and while no doubt furnishing excellent pabulum for the factor analyst, does not sustain its title's promise for the medical psychologist and other subjects with a low statisticism index. Such passages as these two—'The regression line between these two variables, when plotted, is curvilinear, but can easily be straightened out by transformation of the raw r values into their inverse hyperbolic tangents' (p. 197), and 'These correlations cannot be taken too seriously in view of the heteroscedastic nature of the scatter diagrams' (p. 136)—while among my favourite passages in the book, suggest the advisability of providing a glossary.

The Pelican is much more lively and enlivening stuff. With most of it one is either in hearty agreement or equally hearty disagreement. It should at least give the general reader something to think about, if it does not impress him into accepting too readily all Dr Eysenck's opinions without stopping to think. It is a pity that Eysenck has felt the need to drag in the two red herrings about the gun crew and about psychotherapy. There seems to be an unneeded member of a gun crew, and this is quoted as a wasteful and traditional vestige—he is supposed to hold a non-existent horse; in fact, since gun crews at times suffer casualties, they may well carry spare men as cars carry spare wheels.

As many people, proportionately, get better without psychotherapy as with it, so what is the use of psychotherapy? None, hints Eysenck. But another answer is that the use of psychotherapy is to treat those who did not get better without it, since they are the people who eventually go to the psychotherapist. Some of *them* then get better.

J. D. UYTMAN

Interrelations between the Social Environment and Psychiatric Disorders. Various contributors with foreword by Frank G. Boudreaux and Jean Downes. (Pp. 265. $1.50.) New York: Milbank Memorial Fund. 1953.

The report of the Twenty-Seventh Annual Conference of the Milbank Memorial Fund received a notice in Vol. 26, p. 335, of this *Journal*. This is the report of the Twenty-Ninth Conference, the subject-matter of which is fairly indicated by the title.

This report falls naturally into three parts: a series of papers, representing various viewpoints, and verbatim accounts of discussion arising therefrom; an account of a general Round Table discussion on what constitutes a problem suitable for socio-psychiatric study; and descriptions of nine research projects—completed, in process of completion, or still in the projected stage.

Not all of the contents of such a report will be of interest to the general reader searching for information; but workers in the areas of study covered will find this publication stimulating, which, apart from its value to the participants, is presumably one of its main purposes. But even from the standpoint of general interest, some wise and shrewd remarks from the public health angle on the direction of research, an excellent review of current work in ethology, with special reference to that of J. P. Scott and his colleagues, under the heading 'The Process of Socialization in Higher Animals', and some challenging conclusions among the research projects, will attract the medical psychologist.

If a frivolous note may be allowed: seldom can so many improvised words, portmanteau nouns and polysyllabic adjectives and adverbs have been gathered together in a smaller compass, or the reader feel more the need of Sir Compton Mackenzie's mythical Society for the Prevention of Cruelty to the English Language—'. . . while the personality is formed largely within particularistically oriented roles, . . . many social roles, in an industrial-urban society, are universalistically oriented'.

S. BARTON HALL

Group Psychotherapy. By Florence B. Powdermaker and Jerome D. Frank. (Pp. xv+615. $6.50.) Cambridge, Massachusetts: Harvard University Press. 1953.

This book reports the progress achieved in two projects undertaken by the U.S. Veterans' Administration. One was carried out at the V.A. Mental Hygiene Clinic in Washington (from July 1947 to December 1948) and was concerned with studying groups of psychoneurotic patients. The other was undertaken at the V.A. hospital at Perry Point (from July 1947 to May 1949) where chronic schizophrenic patients were observed in two matched wards, one receiving psychotherapy in groups, the other not.

A detailed account is given of the problems to be encountered in group work and there is an abundance of clinical reports. Among the problems taken up in the section of the book devoted to group therapy with psychoneurotic patients, are those concerned with the selection of patients for groups, methods of recording group sessions, the role of the observer, reactions of both patients and doctors, etc. In accord with most authorities on group therapy, the authors emphasize the necessity to make 'here and now' interpretations and avoid reconstructions and interpretations concerning the patient's past. Although they discuss at some length the development of themes within the groups their concept of a group theme is quite different from that advanced by Ezriel (see this *Journal*, Vol. 23, 1950). Again much individual interpretation is undertaken during the group sessions and on the whole interpretations are not directed primarily to the group. The importance of transference manifestations within the group is given adequate recognition, but again this is conceived more on the basis of the patient-doctor relationship than on the group-doctor situation.

Whereas much of what the authors have to say about group psychotherapy in the neuroses is well known to most group therapists, their explorations into the possibilities of group therapy with schizophrenics is pioneering work of great interest and importance. The reader is left with the impression, apart from the actual reports of results, that the patients were affected by the group activity. The authors make very limited claims. Many patients were influenced, particularly as regards their behaviour in the wards. They became less aggressive, needed less sedative, less restraint, etc. Many aspects and difficulties which are to be met in this type of group are discussed at length and this will be of the greatest value to anyone undertaking such work. Amongst the many subjects mentioned are the organizing of groups of schizophrenic patients, the establishing and maintaining of communication between patients and between patients

and doctor. Many techniques are described which the authors found helpful.

This is a valuable book for all those psychiatrists who are interested in group therapy with either psychoneurotic or psychotic patients.

THOMAS FREEMAN

Divine Horsemen: The Living Gods of Haiti. By MAYA DEREN. (Pp. 350. 25*s*.) London: Thames and Hudson. 1953.

This is the finest study I have read yet about 'possession'. It is so from two points of view, which have been rarely combined, since it is at one and the same time an objective ethnological account and also the description of an intensely personal experience of the kind of possession in a ritual setting with which it deals.

The authoress went out to Haiti, the 'coloured man's republic' in the West Indies, armed with a camera and sound-recording instruments to take motion pictures of Haitian dance as 'pure dance form', but got caught up herself in the voodoo religion of which these dances form a part, and became an active participant.

Other white men and women have participated externally in what are called primitive forms of ritual, and some have 'gone black' through a kind of receptive inertia, but no other that I know of has gone through the experience of being 'possessed' in such a setting and has survived to tell the tale in at all comprehensible terms. Miss Deren, who is an educated American, attributes her receptivity partly to what she describes as 'an element of Negro blood' in her. However this may be, she seems to combine the intelligence of both worlds in that, as she writes, 'it was only after I had completely conceded my defeat as an artist... that I became aware of the ambivalent consequences of that failure, for, in effect, the reasons for and the nature of my defeat contained, simultaneously, the reasons for and the nature of the victorious forces as well'. Such an attitude is very refreshing, and informs the whole book with its perception of the ambivalence inherent in all psychic forces.

With no specialized training either in anthropology or in psychology, though being acquainted with both, she has the advantage, for us, of having no axe to grind, but it is primarily descriptive. She gives us a living picture of a complex mythology with its attendant metaphysical ideas and ritual practices, all centring round the emergence of 'powers' which reveal themselves by 'possessing', in a ritual setting, any man or woman they choose. These powers, or archetypes as she frankly admits them to be, are the 'divine horsemen' who, according to the native symbolism, 'mount' the possessed one as though he (or she) were a horse compelled to do their will. These psychic forces are named, for they are at the same time the gods in the mythological system. That they are archetypes is clear from the fact that they represent 'types' of human reaction but are not individuals in the human sense of the term. That is to say that they are not persons, but represent certain aspects of personality, exaggerated in their effects through their isolation from other personality factors, much as the Greek gods represented isolated passions or characteristic types of reaction and so were represented on the stage by actors wearing masks, each indicating what kind of role in the human psyche each such particularized factor played.

Those who participate in the religious drama of Haiti, however, do not wear masks. Their role is less intellectual and less under the control of ego-consciousness. They are 'possessed'. Control has passed into the hands of the possessing power, which can be recognized by the onlookers for what it is, in terms of what god it is; in other words, what type of human reaction is being displayed by the victim which the god has seized.

We in our own culture are apt to see in possession only something negative. We see in mental hospitals, and outside them, people who are possessed, and are indeed negatively possessed, by this or that compulsive action or way of thinking. Such symptoms, however, remain with us uncanalized and so 'uncivilized'. They are not objectified or ritually displayed for us as gods or demons as, for instance, they were in the Middle Ages. So we have become increasingly unaware of them as psychic forces of potentially positive power, and therefore are, in ignorance, apt to fall victim to them in their negative aspect.

But in Haiti they have a different way of dealing with this problem. There the basic emotions are, so to speak, 'catalogued', and this catalogue is the pantheon of gods. Nor are these gods (or powers or archetypes or complexes, whichever we like to call them) by any means simple. They are all highly ambivalent, containing within themselves the opposites which every kind of emotional

reaction does. But they are, each within its own framework, nevertheless stereotyped, 'each of them multifaceted yet homogeneous, each one a marvel of diversity without digression', each isolated from the other, so that men can take note of them objectively and observe their effects. The possessed man or woman gets no kudos. He 'suffers' the isolation of their isolated attacks. Through his person the god is made manifest. The onlookers gain by this through observation. The victim gains by being purged. The most diverse emotions which might otherwise be unacceptable, are thus isolated and canalized, and thereby rendered acceptable within the framework of the social system.

This is effected by means of a concept of uniting the opposites. The imagery of the mirror, which is basic to their mythological concepts, demonstrates this. For the psychic concepts of the 'mirror-image' and of the 'cross-roads', familiar symbols in dream analysis and in the religious systems of many peoples, are here combined into one fundamental image, that of the equal-sided cross, each section of which is regarded as the mirror-image of the other. Of the two bars forming the cross (a symbol used as a monument and also painted in maize-flour on the ground), each bar is regarded as a mirror, in such a way that not only is the left arm regarded as a mirror-image of the right and vice versa as mirrored in the vertical bar, but also the upper section of the vertical bar is the mirror-image of the lower, as the lower is of the upper, the mirror in this case being the horizontal bar. The central point of meeting where these four arms meet, as it were at the cross-roads, is thus a perfect symbol of the union of opposites, and the deep significance of this to the Haitians is clear from the fact that it is through this point of meeting of all the opposites that the gods or powers are thought to appear.

This place of exit and ingress is also called 'the Gate', and on this gate sit, Janus-like facing both ways, the twin gods *Legba* 'The Old Man at the Gate' or 'The Young Man at the Cross-Roads', and *Ghede* 'Corpse and Phallus, King and Clown', in whom, in their complex characters, the opposites of sexuality and other-worldliness are joined. Ghede has incidentally a ravenous appetite, which seizes those who are possessed by him and who in this aspect as in all others are generously indulged. For every possessed one is free to do whatever the god wishes, and so even the most unlikely desires are satisfied under the ritual setting of possession which frees and purges the soul. Indeed, we only learn of what the various gods or powers wish through observation of what they do when they possess a man, and often, after reading about the characteristics of a particular god we find him—or even see him photographed—sitting on a chair, smoking, or dragging his tired limbs away after he has regained consciousness, for he was only revealing himself through a man or woman ritually possessed, whose intimate anxieties have thus been ritually catharized.

Other archetypal concepts referred to as gods include that of the female goddess *Erzulie*, 'The Tragic Mistress', a Demeter-like figure whose onslaught the authoress herself experienced.

Apart from these varied descriptions of the powers, the book presents us with a mass of well-digested mythological material of value to the psychotherapist seeking to understand what dream symbols or hallucinations or the symbols of active imagination mean, and how they can be used for the understanding of the human personality and for the healing of its splits. And we have to thank Maya Deren for her imaginative boldness in going beyond the ordinary impersonal recording canons of anthropology by entering into the spirit of this religio-psychological system so personally but at the same time objectively, and having dared to give us some of her own experience, of which others might have fought shy.

Those interested in the psychological effects of culture-contact will find it of interest to note the various elements of Carribean and West African religions squeezed into a framework of Spanish and French Roman Catholicism (whereby, for instance, the goddess Erzulie becomes equated with the Virgin Mary) which, thus fused, proved to be the dynamic force enabling the Haitian slave population to throw off the servitude of nearly 300 years when they rebelled and founded the first coloured man's colonial Republic in 1804.

This polyglot mythology includes symbolic concepts still current in the deeper levels of modern man. The phenomena of possession are not confined to the so-called primitives. The virtue of a system like this is that the human psyche is to some extent objectified by being mythologically 'dissected' into its component parts, each called a 'god', which can be isolated in all their ambivalence and experienced separately.

JOHN LAYARD

The Revival of Interest in the Dream. By ROBERT FLEISS. (Pp. 164. $3.00.) New York: International Universities Press Inc. 1953.

The Gates of the Dream. By GEZA ROHEIM. (Pp. 554. $10.00.) New York: International Universities Press. 1952.

In the two decades following Freud's complaint about the lack of interest in the dream among analysts, there have been no overt signs in the literature that the situation has in any way improved. Yet it would be misguided to-day, to attribute this paucity of literature on dreams to a slackening of clinical interest in them. A truer explanation, perhaps, is that in the last thirty years major contributions to psychoanalytic theory and technique have been made from the analyses of children and the treatment of adults suffering from grave character and mood disorders.

In both these cases it was the study of the transference behaviour and the repetition in it of the primitive modes of psychic functioning with corresponding emotional fantasies, that yielded deeper insight into the earlier stages of ego and libidinal development and their pathology.

Whereas in the first decades of analytic therapy analysis of dreams had been the royal road to the discovery and understanding of primitive and primary psychic processes, now, with the richer and more sensitive handling of the transference in the analytic set-up, these processes and phases of development become more immediately available to observation and correction, in the here and now of the transference situation.

In this scheme of things it was but natural that dream interpretation should become part of a complex totality of experience. In the analytic literature this has been reflected in the fact that only sporadically papers appeared which detailed the interaction of the growing knowledge of psychopathology with the interpretation and handling of dreams.

The need of a study which would integrate these various and promising researches to the metapsychology of dreams has been keenly felt by all serious workers in recent years. It is precisely this need that Robert Fleiss has so admirably fulfilled in his book *The Revival of Interest in the Dream.* In the 160 pages of this small and lucidly written book he has abstracted, annotated and critically evaluated nearly all the papers in the literature on dreams from 1931 to 1951.

It was an undertaking which demanded great industry, clarity of thought and a very catholic and sound judgement. Fleiss has achieved all these. The reviewer has found no one analyst's hypothesis or clinical material misrepresented in the abstracts; or treated with bias in the commentary.

In the foreword he states 'the theory of dreams is not only, as the author believed, incomplete; it contains, I believe, even a number of errors. It is in want of addenda as well as emendations.' With this in view and the writings of Freud as his firm frame of reference, he has weighed and assessed all the contributions, underlining ideas and papers that contain fruitful lines of research, i.e. the work of Lewin, Isakower, Grotjahn, etc., and debunking with affable wit the claims of those that are only wilfully 'original' from a misguided application of their version of Freud's hypotheses.

Fleiss brings to this hazardous and delicate task of evaluating the work of colleagues, a judgement which is as free of partisanship as it is of the magical potency of dogmatic orthodoxy. The result is that one gets a very exhaustive and balanced review of the whole work on dreams and is left with precisely the feeling that the author had hoped to achieve: 'If the student, closing this small volume, feels that besides having been acquainted with some new ideas, and stimulated to clarify the old ones; he has had a practical lesson in the readings of *The Interpretation of Dreams*, my purpose is achieved.'

There is only one serious omission in Fleiss's review of the literature of the dream and that is Ella Sharpe's book *Dream Analysis* (1937). It is difficult to imagine how such a serious and original book escaped his notice.

Apart from reviewing the work of others, Fleiss has also contributed an original and stimulating hypothesis on the 'spoken word' in the dream, which makes the last chapter of this book a real increment to the rest.

In view of all this there is little doubt that Fleiss's book will establish itself as an indispensable textbook for all teachers and students of psychoanalysis, a status which it richly deserves.

Geza Roheim's *Gates of the Dream* is almost a romantic counter-blast to Fleiss's classicism, and yet it is a reinforcement of the same kind—the revival of interest in the dream. In this massively heterogeneous work, 554 pages with over 1700

references in footnotes, Roheim is in his true element. In the introduction he tells us that: 'Till now I have been telling anthropologists that psychoanalysis is a tool in their field that can explain many things. Now I am telling psychoanalysts that they could use anthropology. The theory of this book could never have been evolved if I had not been a practicing psychoanalyst, but I also could not have understood all the implications of what my patients were saying if I had not been on familiar terms with the *altjiranga mitjina*, "the eternal ones of the dream".'

The theory of the book could be roughly summed up as follows in Roheim's own words: 'My hypothesis assumes that the dream is primarily a reaction to the fact that we are asleep, or to put it differently, that there is such a thing as a basic dream which represents this reaction. Other layers are then added to the dream and these are derived from our waking life.' This 'basic dream' is what Roheim sets out to illustrate from the clinical material and dreams of patients varying from normal ones to schizophrenics. And with his usual vitality and fantastic erudition, coupled with brilliant flashes of imaginative insight, he works through colossal chunks of the phenomena of animism, Shamans, myths of creation, legends of the origins of the world and literature to support the clinical reports. The book is packed with these and their annotations. What the basic dream is, Roheim has stated in different abstractions throughout the book: 'sleep is the prototype of death, it is uterine regression, and the phallic double or eroticized body image originates in the dream as a defense' (p. 150). Samples of basic dreams (in patients) are amply provided (pp. 14–163).

In one of these dreams (p. 16) three stages are distinguished in the basic dream: '(*a*) sleep is death; (*b*) sleep is uterine regression; (*c*) sleep is coitus.'

On p. 62 he details the function of the basic dream further: 'the basic dream is *progression* in *regression*, that is to say, the regression into the womb is counteracted.... The regressive dream also means that a new dream environment is being built up—based on genital libido.' Roheim discusses at length the differences between his theory and Bertram Lewin's hypothesis of dream screen and the oral triad (pp. 88–101).

It is impossible in a short review to do justice to the richness of the content of this book. The application of this hypothesis to anthropological data is as fascinating as the discussion of the clinical material. I shall only quote one specimen of Roheim's brilliant grasp of his material and that is his concluding remark to the chapters dealing with Shamans, animism and dreams: 'Animism is the child of the dream, not of a pseudo-rational theory to explain dreams, but of the very deepest unconscious trends (double vector of the id, uterine regression and genital cathexis) that shape the dream. And the shaman is animism dramatized.'

No matter what one's criticisms of Roheim's methodology might be, he was one of the analysts of the first generation who were inspired by the search after truth and whose work enriched psychoanalysis and made it more than a medical science, i.e. into a true instrument of research into human nature. This, the last book to appear in his lifetime, is truely his *magnum opus*.

M. MASUD R. KHAN

Social Psychology and Individual Values. By D. W. HARDING. (Pp. 184. 8*s.* 6*d.*) London: Hutchinson's University Library. 1953.

This is essentially a reflective book dealing not only with the contribution social psychology has made and can be expected to make to contemporary life, but also intimating here and there the extent to which contemporary social trends may have influenced, often unconsciously, the social psychologist. Throughout, the author holds the balance most fairly between the individual with his needs and values and the collective features of the group. On the whole he feels that our society weights this balance in favour of the latter, but his suggestions for the restoration of it never become mere individualism. He is convinced that we have an innate social instinct, an instinctive liking for our fellow men, thus social behaviour and standards need not be imposed only from outside, but can grow also from within. He does not, on the other hand, underestimate our capacity for hatred and appears to be quite conversant with the findings of psychoanalysis.

Such topics as the origins of social desire, early social development, aggression, competition, leadership, the meaning of normality, are discussed. Because he considers both sides with fairness, new valuations and ways of looking at things arise. Though the book is probably primarily written to give the non-specialist an orientation in the field of

social psychology, it should also be of value to the specialist. For instance, by the breadth rather than the depth of his approach he makes one aware of the insulation which is apt to beset social psychologists or psychoanalysts, and the extent to which they may be adhering to standards of which they are insufficiently aware to criticize, e.g. assumptions regarding successful adaptation to social standards as a measure of cure or maturity, or in having this as a primary yardstick for tests of maturity. He recognizes that social satisfaction may at times have to be sacrificed.

The book is not a comprehensive survey in any sense of the term. It relies for its substance upon the author selecting focal problems out of the total setting of the now very extensive field of social psychology, and using his judgement to evaluate these. For my own taste, the book errs on the side of tepidity, but against this must be set the fact that a gripping presentation is scarcely ever a balanced or reflective one; something which is certainly demanded in dealing with collective forces which can all too easily become affective prejudices or politics.

R. D. SCOTT

Group Work with the Aged. By SUSAN H. KUBIE and GERTRUDE LANDAU. (Pp. 214. $3.50.) New York: International Universities Press, Inc. 1953.

In this book we are given an account of the birth and development over the subsequent seven years of a recreational centre for the aged. It is informed by a spirit of sincerity and enthusiasm inspired by Harry Levine's credo that 'creative energy is ageless' and it appears to have been a pioneer project in this realm. It is well written, easily read, and conveys a living impression of what life must have been like at the centre. The presentation is mainly descriptive, reflexion on the general issues involved take a relatively subsidiary place and no special realm of knowledge such as psychoanalysis is invoked. As far as possible the authors let the understanding of the problems of the aged emerge from impressions given of the work which mainly concerns group relationships, and the relationships of subsidiary groups to the whole.

The centre to these old people usually became 'a whole pattern of living' since their outer lives had become lonely and meaningless due to the death of friends and relatives or their infirmities having made them unwelcome in their own households, but above all to the culture in which they lived having no value for and giving little place to old age. In the first half of the book we are given a picture of an atmosphere highly charged with an almost desperate attempt to fill in the vacuum of their lives, the need is to succeed at all costs. As personalities they were characteristically sensitive, insecure, querulous and egotistical. Thus many difficult situations arose before the workers could lead the groups towards the development of self government. The methods used to lead these solitary and sensitive individuals to firm relationships and to become part of the corporate whole are interesting and are well described. In such an account particular features are of necessity highlighted and others left in the background. In this first half of the book the focus is on activity, achievement, and the need to succeed, to such an extent that I could not help wondering where all this high-pressure socialization was leading and whether there was not something important left out. In the latter half of the book many such doubts are answered and the balance is restored. There is, for instance, a particularly illuminating chapter on 'non-participating members', those who just come and sit, sometimes hardly saying a word. Some very interesting discoveries are made on the value of the centre for these passive members. This part is much more reflective, the authors are at some pains to make clear their own roles, and some of the difficulties they had in adjusting to them.

There is, however, one part of the background which is not described at all. No indication is given as to what American city, for presumably it is a large city, the centre is situated in, nor what sort of neighbourhood, excepting that the population is largely Jewish.

The authors leave us in no doubt at all as to the great value and the great need for some such approach to the problem of the aged. They are mainly dealing with personalities who have been damaged and almost submerged 'by a contemporary culture which gives no place to its older members'. One is left with the impression that this environmental influence has also submerged the meaning and problems of old age in their own right, and that one would like to know more of its essential psychology than can be gleaned from this study.

This book will be of value to workers in this field, and should help to draw attention to a

problem about which there is still insufficient awareness and insufficient provision made.

R. D. SCOTT

Oppression: A Study in Social and Criminal Psychology. By TADEUSZ GRYGIER. (Pp. xiv+362, including index. 28*s*.) London: Routledge and Kegan Paul. 1954.

Dr Grygier sets out to examine the changes in the direction of aggression in people subjected to various forms of oppression and he chooses a combination of five factors as constituting oppression: lack of freedom, disregard of personality, isolation, insecurity and frustration. The main themes are: oppression produces aggression in the oppressed; the degree of oppression and of aggression are related; there is a positive association between delinquency and the tendency to direct aggression outward. To investigate his hypotheses experimentally Dr Grygier went to Germany in 1946. There in the Displaced Persons Camps and in prisons he selected his subjects who were all Poles forcibly brought to Germany during the war. He grouped them according to the degree of oppression they had suffered. Concentration camp was the most severe, forced labour in agriculture was milder and forced labour in industry the mildest. All subjects—152 after strict sifting and matching —were given Rosenzweig's Picture Frustration Test and four cards of the T.A.T.

The results of the men tested in D.P. camps agreed with Dr Grygier's expectation. The men with concentration camp background gave on Rosenzweig's test significantly more 'extrapunitive' responses, their tendency to blame others was greater and so was their insistence that others should satisfy their needs. In the T.A.T. they showed more aggression directed against the 'hero', fewer achievements in their stories and more feelings of frustration. Interestingly enough no significant differences could be found amongst the groups of women which were similarly compared.

To prove his point that delinquents have more outward directed aggression than non-delinquents Dr Grygier compared a group of D.P. prison inmates with a background of forced labour with D.P. non-offenders of the same background. The results appear to confirm Dr Grygier's hypothesis but they do not seem quite convincing. The prison group had only fifteen members with an average age of 22 years against 29 years in the group of non-offenders, and Dr Grygier says himself, on p. 109, that age is a contributory factor in delinquency in the group studied. Amongst the prison inmates from whom Dr Grygier drew his subjects the age group 16 to 25 outnumbered the group 26 to 37 by more than 5 to 1. Besides the age factor one may argue that some of Dr Grygier's criteria of oppression also apply to the prison situation and that the delinquent subjects perhaps reacted as they did, not because they were delinquents but because they were in prison.

In the theoretical part of the book Dr Grygier discusses the implications of his findings with exhaustive references. (The bibliography has 749 items.) He concludes tentatively that 'oppression is conducive to the formation of the antisocial character structure' and that 'under foreign oppression the psychological aspect of culture acquires the character of a psychopathic deviation'.

The main themes of the book are, unfortunately, buried under a heavy load of erudition and the thread is not easy to follow. Could it be that Dr Grygier's tendency to meet every argument before it arises is due to his previous profession as a barrister? In the rare passages in which Dr Grygier allows the reader to proceed unimpeded he shows himself an extremely lucid and convincing writer and a psychologist of acumen. His book is really several books in one. The patient reader will be rewarded by finding important and challenging material and will not withhold admiration for the thorough and thoughtful way the investigation was carried out in a unique setting.

A. KALDEGG

The Troubled Mind. By BEULAH C. BOSSELMAN, M.D. (Pp. 192. $ 3.50.) New York: Ronald Press Co. 1953.

This little book sets out to do three things: to give an account of human personality development from infancy to old age 'with particular attention to the specific problems that must be solved at each age level' if adaptation is to be successfully accomplished; to describe and explain faulty reactions, and the neurotic and psychotic directions which these may take; to review the agencies, influences, and therapeutic methods that make for mental health.

This is a fairly ambitious programme. It is confidently and competently handled by an Associate

Professor of Psychiatry in the University of Illinois Medical School and, considering the small compass, in a loosely structured fashion the ground is covered. The presentation is clear. The account of emotional development follows the now well-worn psychoanalytic path. It is simple and dogmatic, but, in that the matter is confined to what has become common ground in psychiatry, that is no detriment.

The book lacks an authentic clinical ring, and the two case descriptions (pp. 132–4) do not come to life. The section devoted to 'Amentia' is scrappy. Two pages and a bit are inadequate for even the briefest mention of this subject, and they had better have been omitted. On p. 78 Dr Bosselman is critical at the expense of her medical colleagues, who, she finds, tend not to deal frankly with the emotional aspects of illness. Is this still a valid generalization? If so, coming from a teacher it is rather disappointing.

For whom is this book intended? The scarlet, maze-depicting dust cover, and a word in the blurb, suggest the lay public. But to the American citizen conceptions such as castration anxiety (unexplained) are doubtless familiar enough. This work is too elementary for the medical graduate, but the author shows every sign, were she prepared to integrate her account of the emotions with their physiological counterparts, pay a little more attention to natural abilities, and to include a chapter on cultural anthropology, of being able to write a first-rate introduction to clinical psychology for the embryo medical student.

S. BARTON HALL

MEMORIAL TO SIGMUND FREUD

On the anniversary of the birth of Sigmund Freud, 6 May 1954, in the presence of about 200 guests who included the two Deputy Mayors of the City of Vienna, the Rector of the University and the Dean of the Faculty of Medicine, a memorial plaque was unveiled on the outer wall of 19 Berggasse, Vienna.

During the Sixth Annual Meeting of the World Federation for Mental Health, in Vienna, in August 1953, a number of people who made a pilgrimage to see this house discovered that it was not marked in any way, and spontaneously made the suggestion that the whole group should subscribe towards the cost of a commemorative tablet. The Austrian Society for Mental Hygiene contributed the balance of the funds and made all the arrangements for the erection of the plaque. The inscription on it reads:

'In diesem Haus lebte und wirkte Sigmund Freud, in den Jahren 1891–1938, der Schöpfer und Begründer der Psychoanalyse. Gestiftet von der 6. Jahresversammlung der World Federation for Mental Health im August, Wien, 1953.'

Prof. H. C. Rümke, of Utrecht, President of the World Federation for Mental Health, attended the ceremony and gave the first address, followed by Prof. Hans Hoff, Professor of Psychiatry in Vienna and Chairman of the Austrian Society for Mental Hygiene. The wording on the plaque had been submitted beforehand to Miss Anna Freud, who had given her full approval to it.

On the evening before the unveiling, Dr Winterstein, President of the Austrian Psychoanalytical Association, at a special meeting, read a paper on the relation between Freud and Goethe.

PROCEEDINGS OF THE MEDICAL SECTION OF THE BRITISH PSYCHOLOGICAL SOCIETY

[The proceedings from the first meeting (14 May 1919) to the end of 1933 are given in *The British Journal of Medical Psychology*, vol. 13, part 4; for the year 1934 in vol. 14, p. 365; for 1935 in vol. 15, p. 341; for the years 1936, 1937, 1938 in vol. 18, part 2, pp. 283–4; for the years 1939, 1940, 1945, 1946 and 1947 in vol. 21, part 1, p. 80; for the first six months of 1948 in vol. 21, part 4, p. 289; for the remainder of 1948 and 1949 in vol. 22, parts 3 and 4, p. 225; for the first six months of 1950 in vol. 23, parts 3 and 4, p. 234; for the remainder of 1950 and the first six months of 1951 in vol. 24, part 4, p. 316; for the remainder of 1951 and the first six months of 1952 in vol. 25, part 4, p. 268; for the remainder of 1952 and the first three months of 1953 in vol. 26, parts 3 and 4, p. 341.]

249. 29 April 1953. J. ROUNDINESCO. Deterioration of Personality in the Child resulting from prolonged separation and multiple changes in placement.
250. 27 May 1953. T. FREEMAN. Involutional Melancholics who Fail with Electro-Shock Therapy.
251. 24 June 1953. H. J. S. GUNTRIP. The Bearing of Recent Psychoanalytical Developments on the Psychology of Religion.
252. 28 October 1953. W. R. D. FAIRBAIRN. Observations on the Nature of Hysterical States.
253. 25 November 1953. K. R. L. HALL. The Varying Response to Pain in Psychiatric Disorders.
254. 9 December 1953. R. C. ALBINO. Behavioural Effects of Sudden Weaning. A Study in a Zulu Tribe.
255. 27 January 1954. E. STENGEL. The Origins and the Status of Dynamic Psychiatry. (Address from the Chair.)
256. 24 February 1954. D. W. WINNICOTT. The Depressive Position in Normal Emotional Development.
257. 24 March 1954. W. HOFFER. Problems of Early Ego Development.
258. 28 April 1954. ELIZABETH NORMAN. Reality Relationships and Withdrawal in Schizophrenic and Artistic Children.
259. 26 May 1954. K. CAMERON. The Problem of Diagnostic Categories in Child Psychiatry.
260. 23 June 1954. ANNA FREUD. Enquiry into the Concept of the Rejecting Mother.